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IN THE

Supreme Court of the United States

OCTOBER TERM, 1976

No. 76-639

AMERICAN PAPER INSTITUTE, INC., BOISE CASCADE CORPORATION, GEORGIA-PACIFIC CORPORATION, INTERNATIONAL PAPER COMPANY, MEAD CORPORATION, OWENS-ILLINOIS INCORPORATED, PACKAGING CORPORATION OF AMERICA, WESTVACO, AND WEYERHAEUSER COMPANY,

Petitioners,

v.

RUSSELL E. TRAIN, Administrator, Environmental Protection Agency, and JOHN R. QUARLES, Deputy Administrator, Environmental Protection Agency,

Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

THOMAS H. TRUITT
DAVID R. BERZ
910 Seventeenth Street, N.W.
Washington, D.C. 20006

Attorneys for Petitioners

Of Counsel:

TRUITT, FABRIKANT, BUCKLIN
& LENZNER
910 Seventeenth Street, N.W.
Washington, D.C. 20006

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1976

No. ————

AMERICAN PAPER INSTITUTE, INC., BOISE CASCADE CORPORATION, GEORGIA-PACIFIC CORPORATION, INTERNATIONAL PAPER COMPANY, MEAD CORPORATION, OWENS-ILLINOIS INCORPORATED, PACKAGING CORPORATION OF AMERICA, WESTVACO, AND WEYERHAEUSER COMPANY,

Petitioners,

v.

RUSSELL E. TRAIN, Administrator, Environmental Protection Agency, and JOHN R. QUARLES, Deputy Administrator, Environmental Protection Agency,

Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

RELIEF REQUESTED

Petitioners American Paper Institute, Inc., *et al.* (hereinafter collectively "API"), ask that a writ of certiorari be issued to review the judgment of the United States Court of Appeals for the District of Columbia Circuit entered in this case on August 6, 1976. This case presents questions concerning jurisdiction to review regula-

tions promulgated by the Administrator of the Environmental Protection Agency (hereinafter "the Agency") and the implementation of the Federal Water Pollution Control Act Amendments of 1972 (hereinafter "FWPCA" or "the Act"), Pub. L. 92-500, 86 Stat. 816, 33 U.S.C. §§ 1251 *et seq.*, which are already under consideration by this Court in *E.I. du Pont de Nemours and Co., et al.* v. *Train, et al.*, Nos. 75-978, 75-1473 and 75-1705.[1] Given the pendency of the *du Pont* case and in the interest of judicial economy, petitioners request that this Court stay a disposition of this petition pending a decision in *du Pont*.

OPINIONS BELOW

The opinion of the Court of Appeals is not yet officially reported but is reproduced in the *Environment Reporter* at 9 E.R.C. 1065. The opinion and the judgment of the Court of Appeals are annexed hereto as Appendix A. The opinion of the United States Dictrict Court for the District of Columbia is reported at 381 F. Supp. 553. The opinion and order of the District Court are annexed hereto as Appendix B.

JURISDICTION

The judgment of the Court of Appeals sought to be reviewed was entered on August 6, 1976. The jurisdiction of this Court is invoked pursuant to 28 U.S.C. § 1254 (1).

QUESTIONS PRESENTED

1. Whether the regulations issued by the Environmental Protection Agency entitled "Effluent Guidelines and Standards for the Pulp, Paper and Paperboard Point

[1] The American Paper Institute filed a brief as amicus curiae in *du Pont* on July 16, 1976, prior to the decision of the United States Court of Appeals' decision which gives rise to this petition for a writ of certiorari.

Source Category" are reviewable as guidelines for effluent limitations in United States district courts pursuant to the Administrative Procedure Act.[2]

2. Whether the Environmental Protection Agency in violation of its statutory mandate promulgated single-number effluent limitations rather than promulgating guidelines consisting of a range of effluent values and instructions to the permit-granting authorities to consider factors outlined in Section 304 of the Act when prescribing effluent limitations for individual point sources.[3]

STATUTES AND REGULATIONS INVOLVED

1. The Federal Water Pollution Control Act, as amended, Sections 301, 302, 304, 306, 307, 309, 401, 402, 502, 505 and 509 (33 U.S.C. §§ 1311, 1312, 1314, 1316, 1317, 1319, 1341, 1342, 1362, 1365 and 1369), is set forth in Appendix C.

2. "Effluent Guidelines and Standards—Pulp, Paper and Paperboard Point Source Category" for existing sources, 40 C.F.R. Part 430, 39 *Fed. Reg.* 18742 (1974), are set forth in Appendix D.

STATEMENT OF THE CASE

The regulations promulgated by the Administrator which give rise to this petition govern wastewater discharge from approximately one-third of the facilities which manufacture pulp, paper and paperboard in the

[2] See Brief for Petitioners, E.I. du Pont de Nemours and Co., *et al.*, No. 75-978, at 85-93; Brief of the American Paper Institute as Amicus Curiae, No. 75-978, at 85-93.

[3] See Brief for Petitioners, E.I. du Pont de Nemours and Co., *et al.*, No. 75-978, at 30-84; Brief of the American Paper Institute as Amicus Curiae, No. 75-978, at 29-46.

United States. The fundamental issues involved in this case concern substantial questions of federal jurisdiction, statutory construction, the implementation of the Act by the Agency and the application of the Agency's regulatory program to the pulp, paper and paperboard industry.

A. The Statutory Framework

A detailed explanation of the statutory framework is set forth in the Brief for Petitioners, E.I. du Pont de Nemours and Co., *et al.*, No. 75-978, at 5-13. Briefly, Section 301(b), 33 U.S.C. § 1311(b), sets forth the basic regulatory objective. The Act states that all industrial sources treat wastes employing "best practicable control technology currently available" by 1977 and "best available technology economically achievable" by July, 1983. Section 304(b) of the Act, 33 U.S.C. § 1314(b), requires the Administrator to publish "guidelines for effluent limitations" achievable by application of best practicable control technology and best available technology for classes and categories of industry, specifying certain factors, including age of plant and equipment, processes employed, cost of achieving effluent reduction in relation to benefits achieved, size of plant, and other appropriate factors relevant to the application of those technologies to individual point sources.

Section 402 of the Act, 33 U.S.C. § 1342, creates the National Pollutant Discharge Elimination System (hereinafter "NPDES") and requires each point source discharger to obtain a permit. All discharges are prohibited in the absence of an NPDES permit. The permit-granting authorities are charged with the responsibility of applying the Section 304(b) guidelines to individual point sources when issuing permits.[4]

[4] The primary responsibility for issuing permits was envisioned as ultimately resting with the states. Once a state's permit program meets the requirements of the FWPCA and is approved by the Administrator, the authority to issue permits is transferred from the Agency's regional office to the state. *See* Section 402(b)-(f), 33 U.S.C. § 1342(b)-(f).

B. Agency Proceedings

On January 15, 1974, the Agency published "Proposed Effluent Limitations, Guidelines and Standards of Performance for the Pulp, Paper and Paperboard Manufacturing Point Source Categories." 39 *Fed. Reg.* 1908 (1974). These regulations were accompanied by EPA's "Development Document for Proposed Effluent Limitations, Guidelines and New Source Performance Standards."

On March 18, 1974, API and its member companies filed legal and technical comments with the Agency challenging the format of the proposed regulations, the methodologies for developing those limitations and the soundness of the underlying factual premises. In these comments, API provided the Agency with its views on the interpretation and administration of the Act and also provided technical alternatives to the proposed single-number effluent limitations guidelines. API's technical critique and alternatives were more fully developed at an informal hearing held on April 4, 1974.

On May 29, 1974, the Agency published final regulations entitled "Effluent Guidelines and Standards for the Pulp, Paper and Paperboard Point Source Category." 39 *Fed. Reg.* 18742 (1974); 40 C.F.R. Part 430.10 *et seq.*

C. Judicial Proceeding And Decisions Below

On May 30, 1974, petitioners filed a complaint for declaratory judgment and injunctive relief in the United States District Court for the District of Columbia. On August 2, 1974, API filed a motion for partial summary judgment, seeking an order that the regulations promulgated by the Agency constituted guidelines issued pur-

suant to Section 304(b) of the FWPCA and not limitations and that the United States District Court for the District of Columbia had jurisdiction pursuant to the administrative review provisions of the Administrative Procedure Act, 5 U.S.C. § 701 *et seq.*, to review the guidelines. In response, the Agency moved to dismiss for lack of subject matter jurisdiction on August 12, 1974. In its motion, the Agency argued that the regulations constituted both guidelines under Section 304(b) and effluent limitations under Section 301(b) of the Act and were, therefore, reviewable only in the United States courts of appeals under the review provisions of Section 509 of the Act, 33 U.S.C. § 1369. On September 18, 1974, the Court, per the Honorable John H. Pratt, granted the Agency's motion to dismiss on the ground that the regulations challenged by API were effluent limitations which, pursuant to Section 509 of the Act, were subject to review only in United States courts of appeals. API appealed the order of the district court on October 2, 1974, and the appeal was consolidated with petitions for review previously filed by API in the United States Court of Appeals for the District of Columbia Circuit.

On May 29, 1974, API filed petitions for review in the United States Court of Appeals for the District of Columbia Circuit. Briefs were filed by API challenging, *inter alia*, the jurisdiction of the court of appeals to review the regulations and the Agency's statutory interpretation which resulted in the promulgation of single-number effluent limitations. Argument was heard before the United States Court of Appeals for the District of Columbia Circuit in September, 1975. Thereafter, on August 6, 1976, the Court issued its opinion holding first that it had jurisdiction to review the regulations promulgated on May 29, 1974; second, that the Agency had acted within its authority in promulgating single-number effluent limitations rather than guidelines for

effluent limitations; and, finally, that other technical issues raised by API concerning the validity of specific effluent limitations were not meritorious. Thus, the Court sustained the Agency on all grounds.

REASONS FOR GRANTING THE WRIT

I. There Is Presently Pending Before This Court A Case Involving The Fundamental Issues Raised In This Petition.

The fundamental issues raised in *E.I. du Pont de Nemours and Co., et al.* v. *Train, et al.*, Nos. 75-978, 75-1473 and 75-1705, are those raised herein. In particular, we note that the *du Pont* brief filed in No. 75-978, at pages 30 through 84, discusses in detail the position maintained by petitioners, but rejected by the District of Columbia Circuit, that the Agency is precluded from issuing single-number effluent limitations; that it is required to promulgate regulations in the form of a range; and that it is to specify factors which are to be considered by the permit-granting authorities when applying the range to individual point sources. Additionally, petitioners in *du Pont* have raised the question of the jurisdiction of the courts of appeals to review the guideline regulations for existing point sources.

Thus, this petition raises issues which the Court has already deemed appropriate for its consideration. Petitioners have proposed that the Court defer decision on this petition to maximize judicial economy and, at the same time, insure that petitioners' interests are not prejudiced by foreclosing Supreme Court review of the District of Columbia Circuit's decision. Similar procedures have been employed by the Court in considering petitions for certiorari which raise issues already pending before the Court. During the Court's last term, such a procedure was employed in an environmental case involving implementation of the Clean Air Act. *Environ-*

mental Protection Agency v. *Duquesne Light Co.*, 427 U.S. ——, 96 S. Ct. 3185 (1976). *See also Keney* v. *New York*, 388 U.S. 440 (1967).

II. There Is A Conflict Among The Courts Of Appeals On The Issue Of Judicial Review Of The Regulations Promulgated Pursuant To The Act And On The Propriety Of The Administrator's Implementation Of The Act.

The petition for a writ of certiorari filed in the *du Pont* case sets out the various conflicts among the circuits on the issue of jurisdiction to review the regulations and the issue of statutory construction concerning the Administrator's implementation of the Act. At the time of the *du Pont* filing, five courts of appeals had considered and decided the questions raised in this petition. Since that time, at least three other decisions, including that of the United States Court of Appeals for the District of Columbia Circuit in the instant case, have considered the questions presented here and the conflict has widened. Additionally, one district court has considered the issues involving the Agency's implementation of the Act.

The Eighth Circuit has determined that the Agency's guideline regulations are reviewable in the district courts. *CPC International, Inc.* v. *Train*, 515 F.2d 1032 (8th Cir. 1975). All other courts of appeals have determined that the guideline regulations are reviewable in courts of appeals pursuant to Section 509(b) of the Act. *American Iron and Steel Institute* v. *Environmental Protection Agency*, 526 F.2d 1027 (3d Cir. 1975); *American Meat Institute* v. *Environmental Protection Agency*, 526 F.2d 442 (7th Cir. 1975); *American Petroleum Institute* v. *Train*, 526 F.2d 1343 (10th Cir. 1975); *E.I. du Pont de Nemours and Co.* v. *Train*, 528 F.2d 1136 (4th Cir. 1975); *American Frozen Food Institute* v. *Train*, 539

F.2d 107 (D.C. Cir. 1976); and *American Paper Institute* v. *Train*, —— F.2d ——, 9 E.R.C. 1065 (D.C. Cir. 1976).

The Eighth Circuit, in *CPC International, Inc.*, concluded that the Administrator was obligated to issue regulations pursuant to Section 304(b) of the statute which is not listed as a determination subject to court of appeals review in Section 509(b) of the Act. The other circuits all adopted variations of the common theme that Section 301 mandated the promulgation of effluent limitations using the Section 304(b) guidelines and that the Administrator could combine the development of the guidelines and the promulgation of limitations simultaneously in one rulemaking proceeding.

On the issue of statutory construction and the obligation that the Administrator promulgate a range pursuant to Section 304(b) of the Act, the circuits are also split. In *American Iron and Steel Institute* v. *Environmental Protection Agency*, *supra*, the Third Circuit concluded that the Agency could issue limitation regulations pursuant to Section 301 of the Act but that it was also under an obligation to implement Section 304(b) of the Act by establishing guideline regulations employing a range of effluent values.

In *American Meat Institute* v. *Environmental Protection Agency*, *supra*, the court determined that the Administrator had the authority to promulgate regulations under Section 301 of the Act but did not consider the Administrator's responsibilities in connection with Section 304 guideline regulations.

In *E.I. du Pont de Nemours and Co.* v. *Train*, —— F.2d ——, 8 E.R.C. 1718 (4th Cir. 1976), the Fourth Circuit determined that the Agency could issue single-number effluent limitations pursuant to Section 301; however, it concluded that such regulations were only "pre-

sumptively valid" and that adequate opportunity existed at the permit-granting stage for individual point sources to persuade the permit-granting authorities that the presumptively valid regulations were not applicable to them. 8 E.R.C. at 1722. This "presumptively valid" standard was further articulated in *Appalachian Power Co.* v. *Train*, —— F.2d ——, 9 E.R.C. 1033 (4th Cir. 1976). In reaching the conclusion that the regulations were only presumptively valid, the Fourth Circuit determined that the Agency was required to implement a more flexible regulatory program permitting individual variances from presumptively valid regulations which could be asserted by individual point sources and considered by the permit-granting authorities. The court, therefore, remanded the regulations for the purpose of having the Agency establish a variance procedure which would allow the individual sources to overcome the generally applicable effluent limitation and provide some basis for case-by-case considerations at the permit-granting stage. 9 E.R.C. at 1038.

Another view was expressed by the Second Circuit in *Hooker Chemicals and Plastic Corp.* v. *Train*, 537 F.2d 620 (2d Cir. 1976), in which the court determined that the range concept was adequately satisfied by the Agency's classification of the chemical industry into various subcategories of plants. 537 F.2d at 630.

The District of Columbia Circuit, in its decision below and in an earlier decision, *American Frozen Food Institute* v. *Train, supra*, determined that the Agency had, in fact, established a range by subcategorizing the industry. The court also found that each effluent limitation promulgated by the Agency constituted the ceiling of the range and that zero discharge constituted the base of the range. *American Paper Institute* v. *Train*, 9 E.R.C. 1065, 1070-71 (D.C. Cir. 1976). In reaching this conclusion, the District of Columbia Circuit noted that the

Third Circuit disagreed with its approach and, petitioners submit, erroneously concluded that the Second and Fourth Circuits agreed with its position.

In *Grain Processing Corp.* v. *Train*, 407 F. Supp. 96 (S.D. Iowa 1976), *appeal pending*, No. 76-1233 (8th Cir.), the court rejected the Agency's single-number approach. It found that a range of effluent values was required so that the characteristics of individual point sources could be taken into account by permit-granting authorities. The court also concluded that Congress intended that permit-granting authorities be more than "mere conduits" for the Agency's single numbers. 407 F. Supp. at 103.

Thus, there is disagreement among the courts on the major issues raised in this petition which requires this Court's intervention to insure that these conflicts are resolved so that the public and the Agency can knowledgeably proceed with the implementation of the Act passed by Congress in 1972.

III. This Case Presents Questions Concerning The Jurisdiction Of The Federal Courts And Significant Issues Of Statutory Construction Affecting All Major Industries In The United States.

As outlined above, this case presents significant issues of federal jurisdiction. Such questions are particularly appropriate for consideration by this Court as indicated by the granting of the petition in the *du Pont* case, *supra*. *See also Bruner* v. *United States*, 343 U.S. 112 (1952).

The issue of the manner in which the Agency is to implement the Federal Water Pollution Control Act Amendments of 1972 is significant, given the scope and goals envisioned by the Congress in passing that Act. Further, petitioners note that the regulations promulgated by the Agency will require substantial expenditure

of capital which will have such a significant impact on the economy as a whole so as to require the Court's intervention at this time. *See United States* v. *Zazove*, 334 U.S. 602 (1948); and *Alaska* v. *American Can Co.*, 358 U.S. 224 (1959).

CONCLUSION

The Court's consideration of the issues raised in this petition will have major economic and social consequences on the implementation of the water pollution control program of the United States. The implementation of the Act has a significant and direct economic impact on petitioners herein, as well as all facets of American industry and consumers. The cases described indicate substantial disagreement among the courts concerning the fundamental issues raised by this petition.

To enhance judicial economy and avoid duplication of effort, petitioners herein respectfully submit that this Court stay a disposition of this petition until it renders a decision in *du Pont*.

Respectfully submitted,

THOMAS H. TRUITT
DAVID R. BERZ

Attorneys for Petitioners

Of Counsel:

TRUITT, FABRIKANT, BUCKLIN
& LENZNER
910 Seventeenth Street, N.W.
Washington, D.C. 20006

November 5, 1976

APPENDICES

APPENDIX A

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 74-1480

AMERICAN PAPER INSTITUTE,
Petitioner

v.

RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1516

AMERICAN PAPER INSTITUTE,
Petitioner

v.

RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1544

AMERICAN PAPER INSTITUTE,
Petitioner

v.

RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1814

BOISE CASCADE CORPORATION,
Petitioner

v.

RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1815

GEORGIA-PACIFIC CORPORATION,
Petitioner
v.
RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1816

INTERNATIONAL PAPER COMPANY,
Petitioner
v.
RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1817

MEAD CORPORATION,
Petitioner
v.
RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1818

OWENS-ILLINOIS INCORPORATED,
Petitioner
v.
RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1819

PACKAGING CORPORATION OF AMERICA,
Petitioner
v.
RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1820

WESTVACO,
Petitioner
v.
RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

No. 74-1821

WEYERHAEUSER COMPANY,
Petitioner
v.
RUSSELL E. TRAIN, ADMINISTRATOR,
ENVIRONMENTAL PROTECTION AGENCY,
Respondent

Petitions for Review of an Order of the
Environmental Protection Agency

No. 74-1967

AMERICAN PAPER INSTITUTE, ET AL.,
Appellants
v.
RUSSELL E. TRAIN, ADMINISTRATOR OF THE
ENVIRONMENTAL PROTECTION AGENCY,
(D.C. Civil Action 74-814)

Appeal from the United States District Court for the District of Columbia

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Argued September 22, 1975

Decided August 6, 1976

Thomas H. Truitt, with whom *Charles Fabrikant*, *David R. Berz* and *Charles S. Fax*, were on the brief for petitioners.

Bruce Diamond, Attorney, Environmental Protection Agency and *Thomas F. Bastow*, Attorney, Department of Justice, with whom *Wallace H. Johnson*, Assistant Attorney General, *Robert V. Zener*, General Counsel, Environmental Protection Agency, *Edmund B. Clark*, and *Martin Green*, Attorneys, Department of Justice, were on the brief for respondent. *Raymond Zagone* and *Thomas C. Lee*, *Attorneys*, Department of Justice, also entered appearances for respondent.

Edward L. Strohbehn, Jr., filed a brief on behalf of Natural Resources Defense Council, Inc., as *amicus curiae* urging affirmance.

Before: ROBB and WILKEY, *Circuit Judges* and SOLOMON,* *United States Senior District Judge* for the District of Oregon.

Opinion for the Court filed by *Circuit Judge* ROBB.

ROBB, *Circuit Judge*: These consolidated cases present challenges to regulations and actions of the Environmental Protection Agency and its Administrator pursuant to the Federal Water Pollution Control Act Amendments of 1972 (FWPCA), 33 U.S.C. § 1251, *et seq.*

* Sitting by designation pursuant to 28 U.S.C. § 294(d).

(Supp. IV). In No. 74-1967 American Paper Institute (API), joined by eight companies engaged in the production of pulp, paper and paperboard,[1] challenged the EPA regulations by way of a suit in the United States District Court for the District of Columbia. The court held that under Section 509(b)(1) of the FWPCA jurisdiction to review these regulations was in a United States Court of Appeals and not in the District Court; accordingly the court granted EPA's motion to dismiss for lack of subject matter jurisdiction. *American Paper Institute* v. *Train*, 381 F. Supp. 553 (D.D.C. 1974). The plaintiffs appeal.

The appeal from this dismissal has been consolidated here with petitions for review filed by API and the eight paper manufacturing companies. For convenience we shall refer to the appellants and the petitioners collectively as API. The petitions for review challenge both the regulations and the implementation of the FWPCA by EPA. These regulations were promulgated May 29, 1974 and establish effluent limitations guidelines and new source performance standards for five subcategories of the pulp, paper and paperboard industries.[2] We affirm the District Court's dismissal, uphold as valid the Agency's promulgated regulations and dismiss the various petitions for review.

I. THE STATUTE

The FWPCA establishes a comprehensive scheme for federal regulation of water pollution. The ultimate objective of the Act is to eliminate completely the discharge of pollution into navigable waters by 1985. The

[1] Boise Cascade Corporation, Georgia-Pacific Corporation, International Paper Company, Mead Corporation, Owens Illinois Incorporated, Packaging Corporation of America, Westvaco, and Weyerhaeuser Company. API is a non-profit trade association.

[2] 40 C.F.R. § 430 (1975).

Act seeks to accomplish this by means of phased reductions in the amounts of pollutants which are discharged from municipal and industrial sources. Recently, in a lengthy and detailed opinion by another panel, this court reviewed and interpreted certain provisions of the Act which play a key role in this process. *American Frozen Food Institute* v. *Train*, No. 74-1464 (D.C. Cir., May 11, 1976). Because the present case involves a discussion of these same statutory provisions, we dispense with an elaborate analysis of what is indeed a "complicated and lengthy statute," *AFFI* v. *Train, supra*, Slip Op. at 3, and simply sketch, in abbreviated fashion, those sections of the Act with which we must deal.

Section 301, entitled "Effluent Limitations", requires all existing point source [3] dischargers of pollution to meet two levels of effluent standards: one level by July 1, 1977, and the other by July 1, 1983. 33 U.S.C. § 1311. The 1977 level requires the application of the "best practicable control technology currently available" for point sources other than publicly owned treatment works. (BPCTCA or "best practicable") Section 301(b)(1)(A). The 1983 level requires the application of the "best available technology economically achievable" for these same sources. (BATEA or "best available") Section 301(b)(2)(A). These same provisions of Section 301 also state that the defined levels of technology are to be given more specific meaning in regulations issued by the EPA pursuant to Section 304.

Section 304, entitled "Information and Guidelines", indicates the method by which precise definitions for the two standards are to be achieved. 33 U.S.C. § 1314. Under Section 304(b)(1), which applies to the 1977

[3] A "point source" is defined as "any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, [etc.], from which pollutants are or may be discharged." Section 502(14), 33 U.S.C. § 1362(14).

BPCTCA standard, the Administrator is to establish guidelines for effluent limitations. These regulations are to (1) identify the degree of effluent reduction attainable through best practicable control technology currently available for classes and categories of point sources, other than publicly owned treatment works, and (2) specify factors to be taken into account in determining the control measures and practices applicable to such point sources. Section 304(b)(1)(A) & (B). Under Section 304(b)(2), which applies to the 1983 BATEA standard, the Administrator is to publish regulations which take into account similar considerations. Thus, the effluent limitations required under Section 301 are to be achieved pursuant to guidelines established by EPA under Section 304.

Another section of importance in this case is Section 306. 33 U.S.C. § 1316. Unlike Sections 301 and 304 which pertain to effluent standards required for existing sources, Section 306 governs the standard for new sources of pollution discharge. This section specifies twenty-seven industries for which standards for new sources must be set, including the pulp, paper and paperboard industry. The standard for new sources must reflect the greatest degree of effluent reduction achievable through application of the "best available demonstrated control technology" (BADCT), including where practicable, a standard permitting no discharge of pollutants.

Hence, under Sections 301, 304 and 306 of the FWPCA the Administrator is responsible for regulations which define three separate levels of pollution control:

(a) the 1977 "best practicable" (BPCTCA) standare for existing sources;

(b) the 1983 "best available" (BATEA) standard for existing sources;

(c) the "best available demonstrated" (BADCT) standard for new sources.

In general, the statute envisions the 1977 standard as a minimum level of control, the 1983 standard as more stringent, and the new source performance standards as the most stringent.[4]

Primary enforcement of these standards is to be accomplished under Section 402 of the Act. 33 U.S.C. § 1342. This section establishes a permit system as the basic mechanism for enforcing the effluent limitations established under Section 301. Permits for pollutant discharge may be issued by the Administrator or by a state which has adopted a permit program approved by the Administrator. Section 402(a) and (b). The function of the permit is to define precisely each individual discharger's obligations under the Act. EPA retains authority to review operation of a state's permit program and may withdraw approval of a program which is not being administered in compliance with this section. Section 402(c) and (d).

The final statutory provision that is important here is Section 509. 33 U.S.C. § 1369. This section, entitled "Administrative Procedure and Judicial Review", establishes that the United States courts of appeal have exclusive jurisdiction to review the Administrator's actions in promulgating effluent limitations under Section 301. Section 509(b)(1)(E).

II. EPA Proceedings

In January 1973 EPA contracted with a private engineering consultant firm, Wapora, Inc., to make an analysis of the pulp and paper industry to aid EPA in developing effluent limitations and new source performance standards. The Wapora study concentrated only on

[4] For an introduction to the Federal Water Pollution Control Act as seen by the present General Counsel of EPA see Zener, *The Federal Law of Water Pollution Control* in FEDERAL ENVIRONMENTAL LAW 683 (E. Dolgin and T. Guilbert eds. 1974).

that portion of the industry involved in unbleached pulp and paper (Phase I), and the regulations at issue here are only these Phase I regulations.[5]

The Wapora study resulted in a 245-page draft report which was submitted to EPA in June 1973. The draft report stated that as a result of various factors this Phase I category of the paper industry should be subdivided into five subcategories: unbleached kraft, sodium base neutral sulfite semi-chemical, ammonia base neutral sulfite semi-chemical, unbleached kraft-NSSC (cross recovery), and waste paperboard. (App. 41) The report then discussed water use and waste characterization, selection of various pollutants, control and treatment technologies, costs, energy, non-water quality aspects, and implementation requirements. (App. 44-162) This information was then evaluated to make a preliminary determination of the effluent limitations and new source performance standards for each subcategory. (App. 162-180)

In July 1973 copies of the contractor's draft report were circulated and comments solicited from 160 government, state, industry, and private institutions. Twenty-five organizations, including API, responded. Their comments resulted in changes being made in the draft report and in the forthcoming proposed regulations. (App. 1335)

On August 6, 1973 EPA published an "Advance Notice of Public Review Procedures" which set out EPA's general course in developing the regulations for the effluent limitations and new source performance standards. (App. 730) The notice explained the legal authority for the regulations, the general methodology employed in their development, and the means by which EPA would facilitate comment on them. (App. 730-734)

[5] The Phase II regulations concern the bleached segments of the pulp and paper industry. They are not at issue in this litigation.

On January 15, 1974 the proposed guidelines and standards were published in the Federal Register. (App. 1331) The proposed regulations were supported by the contractor's draft report in its proposed form—known formally as the *Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the Unbleached Kraft and Semichemical Pulp Segment of the Pulp, Paper and Paperboard Mills Point Source Category.* [Draft Development Document] (App. 956-1330) In addition, a second document concerning economic analysis and entitled *Economic Analysis of Proposed Effluent Guidelines, Pulp, Paper and Paperboard Industry* was made available to the public and circulated along with the Draft Development Document. (App. 735-955) Once again comments were solicited; thirty-seven parties, including API, responded and additional changes were made in the regulations. (App. 2199, 2203)

A technical hearing on the regulations was held on April 15, 1974. This hearing was in response to API's request, after the two comment periods, for an additional opportunity to comment on the regulations. (App. 1935-36) A transcript of this hearing may be found at App. 1937-2185.

On May 29, 1974 EPA promulgated final regulations setting forth "final affluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the pulp, paper, and paperboard category of point sources." (App. 2199) These are the regulations at issue on this appeal. They are supported by a 340-page final development document which bears substantially the same title as the earlier draft: *Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Unbleached Kraft and Semichemical Pulp Segment of the Pulp, Paper, and Paperboard Mills Points Source Category.* [Final Development Document] (App. 2210-2565)

The promulgated regulations are divided into the five subcategories previously mentioned. *See* p. 9 *supra.* In comments preceding the promulgated regulations EPA alluded to the flexibility provision contained within each of the five subcategories. Comment (7) states:

> Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. *In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers.* Accordingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed. (App. 2203) (Emphasis added.)

The flexibility provision incorporated into each of the five subcategories reads as follows:

> In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these

limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not *fundamentally different* for that facility compared to those specified in the Development Document. *If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors.* Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. (App. 2204-8) (Emphasis added.)

These, then, are the final regulations promulgated by EPA and challenged by API in the District Court, and on these petitions for review.

The only issue before the District Court was whether it had jurisdiction to review the regulations. The court held that Section 509 of the FWPCA provides for review by a United States Court of Appeals and not by a United States District Court. *American Paper Institute* v. *Train*, 381 F. Supp. 553 (D.D.C. 1974).

Before we turn to the merits of the challenged regulations, three preliminary matters must be addressed. These are the questions of our jurisdiction under Section 509, the Administrator's implementation of the Act under Sections 301 and 304, and the "range" of effluent limitations for this industry. All three are issues raised by API and recently resolved by this court in *American Frozen Food Institute* v. *Train*, No. 74-1464 (D.C. Cir., May 11, 1976). Accordingly, our discussion will be brief.

III. Recently Resolved Issues

A. Jurisdiction

API contends that the regulations promulgated by EPA are Section 304 guidelines reviewable by the District Court under the Administrative Procedure Act, 5 U.S.C. § 551 *et seq.* (1970). EPA argues that the Section 304 guidelines are inextricably intertwined with the Section 301 effluent limitations and that the regulations are therefore effluent limitations guidelines promulgated pursuant to both Sections 301 and 304. Thus, argues EPA, review is lodged exclusively in the courts of appeal under Section 509 which states in pertinent part:

> (b) (1) Review of the Administrator's action
>
> * * * *
>
> (E) in approving or promulgating any effluent limitation or other limitation under section 301, 302, or 306 . . . may be had by any interested person in the Circuit Court of Appeals of the United States . . . .

Because Section 509 makes no mention of judicial review of Section 304 guidelines, Section 509 will not apply and review is not lodged exclusively in this court unless we determine that the regulations published by EPA are effluent limitations guidelines under Sections 301 and 304.

In *AFFI* v. *Train, supra,* this court analyzed the language and legislative history of the FWPCA in detail and resolved this question in favor of the Agency. We note that the Eighth Circuit takes a contrary view, *CPC International, Inc.* v. *Train,* 515 F.2d 1032 (8th Cir. 1975), but that the Second, Third, Fourth, Seventh and Tenth Circuits are in agreement with us. *Hooker Chemicals & Plastics Corp.* v. *Train,* No. 74-1687 (2d Cir., April 28, 1976); *American Iron & Steel Institute* v. *EPA,* 526 F.2d 1027 (3rd Cir., 1975); *E.I. duPont de Nemours & Co.* v. *Train,* 528 F.2d 1136 (4th Cir. 1975), *cert. granted,* 44 U.S.L.W. 3585 (U.S. April 20, 1976) (No. 75-978) (*duPont I*); *American Meat Institute* v. *EPA,* 526 F.2d 442 (7th Cir. 1975); *American Petroleum Institute* v. *EPA,* 526 F.2d 1343 (10th Cir., 1975). Accordingly, we reaffirm the view expressed in *AFFI* v. *Train, supra,* Slip Op. at 38, that this court has jurisdiction under Section 509 of the FWPCA to review the effluent limitations guidelines which have been promulgated by the Administrator pursuant to Sections 301 and 304 of the Act.

B. Implementation

The question presented here is whether the effluent limitations guidelines published by EPA pursuant to Sections 301 and 304 reflect a proper implementation of the FWPCA. API contends that EPA should merely publish guidelines to assist the Section 402 permit-granting authorities, which in turn will establish effluent limitations on an individual, plant-by-plant basis. EPA says it must promulgate effluent limitations which shall be nationally uniform.

In *AFFI* v. *Train, supra,* this court examined the language of the Act and its legislative history and again resolved this issue in favor of the Agency. The court said:

> As we have pointed out in Parts I and II, both the legislative history of the Act and its statutory structure and language mandate our rejecting the argument that the Act required the Administrator to set "guidelines" and "effluent limitations" for individual plants. We believe that Congress intended individual plant considerations to be taken into account within the nationally set effluent limitations in the granting of state permits under §§ 402(b) and (c). . . . Slip Op. at 42.

Although once again at odds with the view expressed by the Eighth Circuit in *CPC International, supra,* strong support for our position is found in similar holdings by the Second, Third, Fourth and Seventh Circuits. *Hooker Chemicals & Plastics Corp.* v. *Train, supra; American Iron & Steel Institute* v. *EPA, supra, E.I. duPont de Nemours & Co.,* v. *Train,* No. 74-1261 (4th Cir., Mar. 10, 1976), *cert. granted,* 44 U.S.L.W. 3733 (U.S. June 22, 1976) (Nos. 75-1473 & 75-1705) (*duPont II*); *American Meat Institute* v. *EPA, supra. See also EPA* v. *State Water Resources Control Board,* 44 U.S.L.W. 4781, 4786 (U.S. June 7, 1976).

Contrary to API's fears, this interpretation will not reduce the function of the permit-granting authorities to that of a "clerical rubber stamping exercise." As noted earlier in our discussion, there is a flexibility provision incorporated into the regulations for establishing effluent limitations guidelines for each of the five subcategories. This provision has recently been unheld by this circuit and two others. *See AFFI* v. *Train, supra, E.I. duPont de Nemours & Co.* v. *Train, (duPont II), supra,* and *Natural Resources Defense Council* v. *EPA,* No. 74-1258 (2d Cir., Apr. 28, 1976). Under the provision, the permit-granting authorities have a critical role to play: to define *precisely* the discharger's obligations under the Act where "fundamentally different factors" require an adjustment in the effluent limitations

established for the particular subcategory. As stated by the Second Circuit:

> Not all of the thousands of plants in operation can be expected to fit into prefabricated molds or templates. By specifying a permit procedure, Congress implicitly conferred on the permit-grantor the privilege of construing the broader regulations in light of the specific type of plant applying for the permit. Without variance flexibility, the program might well founder on the rocks of illegality.

Natural Resources Defense Council v. *EPA*, *supra*, Slip Op. at 9-10. Accordingly, we reaffirm the view expressed in *AFFI* v. *Train*, *supra*, Slip Op. at 42, that the EPA is to promulgate effluent limitations guidelines of a nationally uniform nature.

C. Range

API argues that the entire set of regulations is invalid because the Agency has established single number effluent limitations for each subcategory instead of a range of numeric values. In support of its "range" argument petitioners refer to the following statement in the Senate Report on the 1972 FWPCA amendments:

> In effect, for any industrial category, the Committee expects the Administrator to define a range of discharge levels, above a certain base level applicable to all plants with that category.[6]

EPA's response is that it has fulfilled the Committee's expectation. The Administrator has taken the pulp, paper and paperboard industrial category, divided it into two

[6] CONGRESSIONAL RESEARCH SERVICE, A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS of 1972, at 1468 (1973) (hereinafter "*Leg. Hist.*")

phases, and established five subcategories for the first phase.[7] He has then assigned separate effluent limitations for each subcategory in Phase I. Thus, the individual numerical limitations for the five subcategories provide the "range" for Phase I of the pulp, paper and paperboard industrial category.

In *AFFI* v. *Train*, *supra*, this court considered and rejected API's argument. We approved EPA's method of establishing single number effluent limitations because "the permit issuing authority under § 402 (state or federal) will clearly be able to employ any limitation it finds appropriate for a specific plant which falls between a 'range' of zero pollutant discharge and the nationally set effluent limitations." Slip Op. at 63. On the facts presented to us, we add only that the Administrator has exercised reasonable discretion in subcategorizing the industry and establishing separate effluent limitations for the five subcategories of this phase of the industry. Although the Third Circuit has disapproved of this approach in *American Iron & Steel Institute* v. *Train*, *supra*, the Second and Fourth Circuits are in agreement with us. *Hooker Chemicals & Plastics Corp.* v. *Train*, *supra*, and *E.I. duPont de Nemours & Co.* v. *Train*, *(duPont II)*, *supra*. *We affirm the Agency's* method of establishing single number discharge limitations for each subcategory of this industry.

IV. Scope of Review

This court's authority to set aside agency action is governed by Section 10(e)(2)(A) of the Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (1970). We may not interfere unless the agency's action is "arbitrary, capricious, an abuse of discretion, or otherwise not in

[7] According to EPA, approximately 16 additional subcategories will be included in the Phase II segment of the pulp and paper industry. Brief for Respondent at 37.

accordance with law". We may not substitute our judgment for that of the agency. *Citizens to Preserve Overton Park* v. *Volpe*, 401 U.S. 402, 416 (1971). We must ensure that a rational basis exists for the agency's decision. *Bowman Transportation, Inc.* v. *Arkansas-Best Freight Systems, Inc.*, 419 U.S. 281 (1974). This does not mean however that we must rubber-stamp agency decision-making. It is our duty to ensure that the agency's decision is based on a consideration of all relevant factors. Our inquiry must be searching and careful, especially in highly technical cases such as the present one. *Ethyl Corp.* v. *EPA*, No. 73-2205 (D.C. Cir., March 19, 1976) (en banc), Slip Op. at 68-71, *cert. denied*, 44 U.S.L.W. 3715 (U.S. June 15, 1976). On this basis we proceed to an examination of the specific regulations being challenged.

V. General Validity of Regulations

A. Cost

Cost is one of the factors which the Administrator must consider in setting standards under the Act. Section 304(b)(1)(B) requires that he consider "the total cost of application of technology in relation to the effluent reduction benefits to be achieved" by the 1977 BPCTCA standard. This requires a cost-benefit analysis. Sections 304(b)(2)(B) and 306 mandate no such balancing. Under these sections the Administrator must consider only "the cost of achieving such effluent reduction" in establishing the 1983 effluent limitations guidelines and the new source performance standards.

API contends that EPA's assessment of the costs involved in setting these standards is inadequate in two respects: first, that the cost analysis undertaken by EPA is perfunctory and ignores economic considerations; and second, that the Agency has not engaged in a cost-benefit analysis for the 1977 standard as required by Section 304(b)(1)(B). We perceive no merit in either charge.

The bulk of EPA's cost analysis is contained in Section VIII and Appendix III of the Final Development Document. (App. 2409-2426; 2519-2548) Section VIII summarizes the costs of internal and external effluent treatment associated with the three technological levels prescribed by the Act—the 1977 BPCTCA, the 1983 BATEA and the new source performance standards. For each technology the cost of effluent treatment has been determined for the five subcategories established in this phase of the paper industry. (App. 2448, 2469, 2477) Tables showing internal and external controls for the five subcategories also indicate the investment costs, total annual costs, interest cost plus depreciation cost at 15% per year, and operating and maintenance costs. (App. 2419-2423) Appendix III of the Final Development Document presents a detailed description of the basis of the costs presented in the Section VIII tables. (App. 2519-2548) In addition, the Appendix delineates the internal and external technologies identified by the three levels of technology in terms of design limitations, unit processes and costs. Our study of these portions of the Final Development Document leads us to conclude that the Administrator's analysis is neither arbitrary nor capricious.

API's second contention is that the Administrator has not engaged in a cost-benefit analysis for the 1977 BPCTCA as required by Section 304(b)(1)(B). Our examination of the record however negates this charge. In a 240 page report entitled *Economic Analysis of Proposed Effluent Guidelines, Pulp, Paper and Paperboard Industry*, the Agency, assisted by Arthur D. Little, Inc., engaged in a careful analysis of the total cost effects of the regulations and their impact on prices, production, employment, community, balance of payments and growth. (App. 735-955) As noted in the preamble to the published regulations, the total projected impact of 1977 BPCTCA technology includes 3%-6% price increases, 7-10

potential closures out of 188 mills, and 810-1,250 potential unemployed persons (representing 1.1%-1.6% of total employment for these mills). (App. 2203) In that portion of the preamble entitled "Cost-benefit analysis", the Administrator concludes with this statement:

> The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry. (App. 2203)

Our review of the costs identified in Section VIII of the Final Development Document and the discussion of their impact in the Economic Analysis convinces us that there is firm record support for the Administrator's conclusions.

B. Non-water Environmental Impact and Energy Requirements

Sections 304 and 306 of the Act require the Administrator to consider non-water quality environmental impact and energy requirements in establishing effluent limitations guidelines and new source performance standards. API argues that EPA has failed to fulfill this statutory obligation because it did not analyze energy costs and omitted consideration of certain environmental impacts.

The Final Development Document shows that EPA did analyze the energy costs and requirements of the industry. (App. 2424-2426, 2448, 2469) After establishing both the power costs and energy requirements for all five subcategories under the 1977 BPCTCA standard, the 1983 BATEA standard, and the new source performance standard, (App. 2425-2426) the Administrator concluded that these energy considerations "are not substantial (less than 1 per cent [in the case of BPCTCA]) and should not be great enough to warrant concern on either

a national or regional basis." (App. 2448 and 2469) In view of this assessment, the Administrator cannot be charged with failing to perform his statutory duty.

We reach the same conclusion regarding the Agency's consideration of the non-water environmental impact of these regulations. We note in the Final Development Document that the Administrator discusses air pollution, noise potential, solid waste disposal and by-product recovery. (App. 2427-2432) API takes the Administrator to task for failing to consider the impact of increased lime treatment and the implications of reuse of condensate streams. Our review of the Administrator's discussion of non-water environmental impact does not convince us that his treatment of these issues constitutes arbitrary or capricious action. There is no indication that increased lime treatment is a significant factor or that the Administrator's discussion of the air pollution problems does not encompass the problems inherent in reuse of condensate streams. Accordingly, we decline to find invalid this portion of his analysis.

VI. The 1977 Effluent Limitations Guidelines

EPA must establish effluent limitations guidelines for 1977 which reflect the application of "the best practicable control technology currently available (BPCTCA)."[8] In the establishment of BPCTCA standards, Section 304 (b)(1)(B) of the Act requires the Administrator to consider the following factors: (1) the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application; (2) the age of equipment and facilities involved; (3) the processes employed; (4) the engineering aspects of the application of various types of control techniques; (5) process changes; (6) non-water quality environmental

[8] 33 U.S.C. § 1311(b)(1)(A).

impact (including energy requirements); and (7) such other factors as the Administrator deems appropriate. BPCTCA limitations will normally be established on the basis of the average performance of the best existing plants in each subcategory. Although the BPCTCA effluent standards will rely primarily on external (or "end of pipe") treatment, internal control measures may be required if they are considered normal practice within the industry.

As noted earlier, this unbleached phase of the pulp, paper and paperboard industry has been subdivided into five subcategories: unbleached kraft, sodium base neutral sulfite semi-chemical, ammonia base neutral sulfite semi-chemical, unbleached craft—NSSC (cross recovery), and waste paperboard. For existing sources in each subcategory, the 1977 effluent limitations guidelines limit the discharge of three pollutants: "BOD5", "TSS", and "pH". These terms require explanation:

(a) BOD5. The initials "BOD" stand for "biochemical oxygen demand". This is a measure of the oxygen consuming capabilities of organic matter. Dissolved oxygen in the water is consumed during decomposition of organic pollutants. Biochemical oxygen demand is commonly termed "BOD5" because the analytical techniques utilized for measurement involve a five-day period.

(b) TSS. The initials "TSS" stand for "total suspended solids". This is a measure of the materials suspended in a sample of water. Suspended solids in pulp and paper mill effluents are generally fibrous materials lost in the pulping of wood and the production of paper.

(c) pH. This is a logarithmic expression of the concentration of hydrogen ions in a sample of waste water. It essentially describes the acidity or alkalinity of a water sample. At a pH of 7,

the hydrogen and hydroxyl ion concentrations are approximately equal and the water is neutral. Lower pH values indicate acidity while higher values indicate alkalinity. Final Development Document at 83-86. (App. 2309-2312)

The 1977 effluent limitations guidelines permit the discharge of certain amounts of BOD5 and TSS expressed in pounds per ton of product (and kilograms per 1,000 kilograms of product) and the presence of a certain amount of pH for each subcategory. These limitations are set out in the following table.

BPCTCA Effluent Limitations

Values in kg/kkg (lbs/ton)

	BOD5				TSS			
Subcategory	30 Day		Daily Max		30 Day		Daily Max	
Unbleached Kraft	2.8	(5.6)	5.6	(11.2)	6.0	(12.0)	12.0	(24.0)
NSCC-Ammonia	4.0	(8.0)	8.0	(16.0)	5.0	(10.0)	10.0	(20.0)
NSSC-Sodium	4.35	(8.7)	8.7	(17.4)	5.5	(11.0)	11.0	(22.0)
Unbleached Kraft-NSSC	4.0	(8.0)	8.0	(16.0)	6.25	(12.5)	12.5	(25.0)
Paperboard from Waste Paper	1.5	(3.0)	3.0	(6.0)	2.5	(5.0)	5.0	(10.0)

pH for all subcategories shall be within the range of 6.0 to 9.0.

Final Development Document at 216 (App. 2442).

A. Internal Control Measures

API's first challenge to the 1977 effluent limitations is that in order to meet the BOD5 limitations, the majority of mills in the industry will be required to make extensive internal changes in their equipment. This, API argues, contravenes the Act, which limits the 1977 standards to external treatment measures.

API errs in believing that the FWPCA precludes in-plant control measures as part of the 1977 BPCTCA standard. The statute and the legislative history make clear that although BPCTCA standards are to rely principally on end-of-pipe treatment of waste water, internal control measures may be included if these measures are considered normal practice within the industry.[9] The Final Development Document establishes that the in-plant changes which have been identified as available in 1977 are practices which are in common use in the pulp and paper industry. (App. 2443) Fully 60-100% of the mills within the five subcategories use some or all of the identified internal controls. *Id.* Moreover, the record discloses that at a technical meeting on April 4, 1974, API informed EPA that various in-plant control measures specifically identified by the Agency as BPCTCA were then common practices in the industry. (App. 2019-2025) Finally, we note that the Second and Fourth Circuits are in agreement with our position that internal control measures are permissible under the 1977 standard if they are considered normal practices within the industry. *See Hooker Chemicals & Plastics Corp.* v. *Train, supra,* Slip Op. at 36-37, as modified by Memorandum of June 14, 1976; *duPont II, supra,* Slip Op. at 27-28; *Tanners' Council* v. *Train,* No. 74-1740 (4th Cir., Mar. 10, 1976) Slip Op. at 5; *FMC Corp.* v. *Train,* No. 74-1386 (4th Cir., Mar. 10, 1976) Slip Op. at 13.

B. Basis for 1977 Effluent Limitations Guidelines

API's second challenge to the 1977 effluent limitations is that they may not be based upon the average of the

[9] *See* Section 304(b)(1) ("control measures and *practices*"). (Emphasis added.) The Senate Consideration of the Report of the Conference Committee contains the following statement by Senator Muskie: "'[b]est practicable' can be interpreted as the equivalent of secondary treatment for industry, *but this interpretation should not be construed to limit the authority of the Administrator.*" *Leg. Hist.* at 170. (Emphasis added.) *See also Leg. Hist.* at 1468.

best performing mills in each subcategory, but must reflect only the average of the industry's current performance. This argument is unpersuasive in light of the following statement by Senator Muskie in his discussion of the Conference Report:

> In defining "best practicable" for any given industrial category, the Committee expects the Administrator to take a number of factors into account. These factors should include the age of the plants, their size, the unit processes involved, and the cost of applying such controls.
>
> *The Administrator should establish the range of "best practicable" levels based upon the average of the best existing performance by plants of various sizes, ages, and unit processes within each industrial category.* In those industrial categories where present practices are uniformly inadequate, the Administrator should interpret "best practicable" to require higher levels of control than any currently in place if he determines that the technology to achieve those higher levels can be practicably applied.
>
> "Best practicable" can be interpreted as the equivalent of secondary treatment for industry, but this interpretation should not be construed to limit the authority of the Administrator. *Leg. Hist.* at 169-70. (Emphasis added.)

Accord, American Meat Institute v. *EPA,* 526 F.2d 442, 453 (7th Cir. 1975); *Hooker Chemicals & Plastics Corp.* v. *Train, supra,* Slip Op. at 24; *Tanners' Council* v. *Train, supra,* Slip Op. at 5.

We find no merit in API's remaining contentions that EPA improperly used data showing maximum calendar month discharges to set effluent limitations and that unexplained discrepancies between the Draft and Final Development Document render the regulations invalid. On the first point, there is no inconsistency between the data

and the regulations because both use twelve fixed-period daily averages per year. On the second point, because the Draft Development Document represents only a stage in the rulemaking process, subject to comment and change, there is no requirement that the Agency explain minor changes and refinements which inevitably result during such a process.

C. Identification of Effluent Reduction

API's third challenge to the 1977 effluent limitations is that, contrary to the requirement of Section 304, EPA has failed to identify the degree of effluent reduction attainable through application of the best practicable control technology currently available. EPA contends that it has fully complied with Section 304 by establishing for each subcategory the quantity or quality of the various pollutants which may be discharged after application of the BPCTCA standard. We believe petitioners' argument is more a matter of semantics than one of substance.[10]

Section 304(b)(1)(A) requires the Administrator to publish regulations providing guidelines for effluent limitations which

> identify, in terms of *amounts* of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best practicable control technology currently available for classes and categories to point sources . . . . (Emphasis added.)

This is precisely what EPA has done. It has (1) identified the three types of pollutants whose discharge must

[10] Petitioners also raise this same argument regarding the 1983 effluent limitations. Our discussion here is a response to both challenges.

be limited under the 1977 standard (BOD5, TSS and pH), and (2) established in the regulations themselves the amounts of these pollutants which may be discharged in the five subcategories of this phase of the paper industry. We think this is a reasonable response to the statutory requirements and we reject the contention that EPA is also *required* to furnish data as to the pollution reduction which can be expected from the technologies which comprise the 1977 BPCTCA standard. If the Agency chooses to promulgate effluent limitations in the form of percentage removals, as it has done in the case of two subcategories of the 1983 color limitations, we would find this alternate method of establishing effluent limitations guidelines acceptable under the language of Section 304. However we do not believe that the above-quoted portion of Section 304(b)(1)(A) dictates to the Administrator that in adopting one or the other of these two methods he must also estimate how much reduction in pollution will be achieved as a result of the enunciated standard.

D. 1977 BOD5 and TSS Limitations

API's fourth and final challenge to the 1977 effluent limitations is directed at the permissible amounts of BOD5 and TSS which may be discharged by mills under the BPCTCA standard. API contends that the 1977 BOD5 and TSS limitations cannot be met by the majority of mills performing at the "best practicable" level and therefore these limitations are invalid. In weighing petitioner's argument, we must examine the method employed by EPA to establish these limitations.

EPA's technique for developing effluent limitations guidelines and new source performance standards is set out in the Agency's notice of August 6, 1973. (App. 730)

> [T]he development of regulations for effluent limitations guidelines and standards of performance [is]

undertaken in the following manner. The point source category is first studied for the purpose of determining whether separate limitations and standards are appropriate for different segments within the category. This analysis includes a determination of whether differences in raw material used, product produced, manufacturing process employed, age and size of plants, waste water constituents and other factors require development of separate limitations and standards for different segments of the point source category. The raw waste characteristics for each such segment are then identified. This includes an analysis of (1) the source, flow and volume of water used in the process employed and the sources of waste and waste waters in the plant; and (2) the constituents of waste waters. The constituents of the waste waters which should be subject to effluent limitations guidelines and standards of performance are then identified.

Next, the control and treatment technologies existing within each segment are identified. This includes an identification of each distinct control and treatment technology, including both in-plant and end-of-process technologies, which exists or is capable of being designed for each segment. It also includes an identification of the effluent level resulting from the application of each of the treatment and control technologies, in terms of the amount of constituents and the chemical, physical, and biological characteristics of pollutants. The problems, limitations and reliability of each treatment and control technology are also identified. In addition, any non-water quality environmental impact, such as the effects of the application of such technologies upon other pollution problems, including air, solid waste, noise and radiation is examined. Finally, the energy requirements of each control and treatment technology are determined, as well as the cost of the application of such technologies.

> This information is then evaluated in order to determine what levels of technology constitute the "best practicable control technology currently available", "best available technology economically achievable" and the "best available demonstrated control technology, processes, operating methods, or other alternatives." In identifying such technologies, various factors are considered including the total cost of the application of technology in relation to the effluent reduction benefits to be achieved from such application, the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes and non-water quality environmental impact (including energy requirements). (App. 731)

The accumulation of information from this process resulted in a large data base. As shown in the following table, the total number of mills included in the subcategories under study was 218 of which 84 discharged to municipal systems.[11] Of the 134 mills discharging to receiving waters, raw waste data from mill records was available for 64 mills. Final effluent data from mill records was available for 30 mills. Of these 30, 18 mills were finally chosen as best performers.

[11] Plants which discharge to municipal treatment systems are not subject to effluent limitations under Sections 301 and 304.

NUMBER OF MILLS PER SOURCE OF INFORMATION

Subcategory	Total Number of Mills	Discharging To Municipal	Discharging To Receiving Waters	Mill Records, NCASI [12] Raw Waste	Mill Records, NCASI [12] Final Effluent (a)	Best Performers
Unbleached Kraft	27	0	27	24	12	6
NSSC-Sodium	14	1	13	6	3	1
NSSC-Ammonia	2	0	2	1	1	0
Kraft-NSSC	10	0	10	10	4	3
Paperboard-Waste Paper	165	83	82	23	9(b)	8
Totals	218	84	134	64	30	18

(a) Effluents from biological treatment
(b) One of the nine mills only had primary treatment

(App. 2242)

EPA's method of choosing "best performers" for each subcategory is based on data contained in Sections III, V, VII and VIII and in the Appendices of the Final Development Document. Following the accumulation and analysis of information and data from every available source, best performing mills were chosen on the basis of those mills in each subcategory with the lowest current levels of pollution discharge. This is best illustrated by the following example.

In the unbleached kraft subcategory, raw waste data were available for 24 of the 27 mills. Final effluent data were available for 12 of these 27. After these data were examined six of the seven unbleached kraft mills achieving the best final effluent qualities in the country were selected as best performers. (App. 2450-2451) (The mill achieving the best final effluent quality in this subcategory, mill UK-3, was not included as a best performer because its external treatment system was judged to be

[12] "NCASI" stands for the National Council of the Paper Industry for Air and Stream Improvement. (App. 1728)

atypical of the subcategory.) (App. 2449) The best performers in this subcategory are found in Tables 61 and 62 of the Final Development Document. (App. 2450-2451)

Once the Agency had selected its "best performers" it was in position to determine the effluent limitations guidelines for the 1977 BPCTCA standard. As previously mentioned, the legislative history demonstrates that Congress required EPA to establish 1977 effluent limitations based on "the *average* of the best existing performance by plants of various sizes, ages, and unit processes within each industrial category." *Leg. Hist.* 169, 1468. (Emphasis added.) To continue our example of the unbleached kraft subcategory, Tables 61 and 62 provide us with the following information about the six best performers:

Final Effluent Data Showing Maximum Monthly Discharges of BOD5 and TSS in kg/kkg (lbs/ton)

Mill	BOD5	TSS
UK-1	2.3 (4.6)	6.1 (12.1)
UK-2	1.3 (2.7)	3.8 (7.6)
UK-5	3.1 (6.1)	7.1 (14.2)
UK-6	3.7 (7.4)	3.9 (7.9)
UK-7	3.1 (6.2)	4.6 (9.3)
UK-8	3.3 (6.6)	3.5 (7.0)
Average	2.8 (5.6)	4.8 (9.7)

(App. 2450-2451)

The 1977 BOD5 limitation finally established by EPA for the unbleached kraft subcategory was the figure derived from averaging the BOD5 figures from the six best performers: 2.8 (5.6). Ordinarily the 1977 TSS limitations would have been the average of the TSS discharge figures from these same six dischargers, but in

this particular subcategory a less stringent limitation was finally selected because of practical considerations.[13]

(1) BOD5

API's attack on the 1977 BOD5 limitations is based on a discussion of "percentage removals". API equates the 1977 BPCTCA for removal of BOD5 at 85% and then presents calculations to show that in reality EPA is requiring treatment systems which must be capable of removing 92% of the annual average BOD5. This, API argues, exceeds what EPA has identified as BPCTCA.

The flaw in petitioners' argument is that the 85% figure has not been used by the Agency to define the 1977 BOD5 limitation. It is not in the regulation establishing the effluent limitations guidelines for BOD5 and does not appear in that section of the Final Development Document discussing the BPCTCA standard.[14] Although there is one reference to an 85% BOD removal figure in a discussion of secondary treatment systems in Appendix III of the Final Development Document, four district biological units are analyzed there and in the analysis of only one—natural oxidation ponds—does this figure appear. (App. 2536) It appears that API has taken this figure out of context, misapplied it, and now criticizes the Agency for requiring limitations which exceed it. We therefore regard petitioners' discussion of

[13] As noted in the Final Development Document, the TSS limitations were based on Mill UK-1 (6.1 (12.1)) and not on the average of the best performers' TSS levels (4.8 (9.7)). The less stringent limitation was chosen because a portion of the treatment system used by some of the best performers required very large land areas not always available at all unbleached kraft mills. (App. 2450-2452)

[14] Section X of the Final Development Document. (App. 2463-2472)

percentage removals as irrelevant in the context of the 1977 BOD5 limitations and uphold these regulations as promulgated.

(2) TSS

API says the 1977 TSS limitations are invalid because the Agency has failed to specify technology capable of removing "non-settleable biological solids" and has not stated what "percentage of reduction" of this material can be achieved by the operations EPA describes.[15] EPA responds that these allegations are irrelevant: because the TSS limitations are based on actual waste water treatment performance data, the settleability of biological solids and the reduction capabilities of the identified technologies are included in the final effluent TSS levels.

Although EPA's response is satisfactory to us on both points, we are unpersuaded by API's arguments for additional reasons. First, we find unsound petitioners' method of framing an argument on the basis of definitions not employed by the Agency and not found in the record. The absence of any discussion of the "non-settleable" nature of biological solids reinforces our view of the validity of the TSS limitations as promulgated. Second, we have already considered and rejected API's "percentage reduction" argument. As we said in discussing API's third challenge to these effluent limitations guidelines, EPA is in full compliance with Section 304 (b) (1) (A): it has (1) identified the pollutants whose discharge must be limited under the 1977 standard (BOD5, TSS and pH), and (2) established in the regulations themselves the amount of these pollutants which may be discharged in the five subcategories of this phase of the paper industry. EPA is not required to furnish data as to the pollution reduction or "percentage reduc-

[15] Petitioners raise this same argument regarding the new source performance standards. Our discussion here is a response to both challenges.

tion" which can be expected from the technologies which comprise the 1977 BPCTCA standard.

Finding no merit in any of petitioners' challenges to the 1977 effluent limitations guidelines, we uphold these limitations.

VII. The 1983 Effluent Limitations Guidelines

EPA must establish 1983 effluent limitations guidelines which reflect application of "the best available technology economically achieveable (BATEA)." [16] In establishing BATEA standards, Section 304(b)(2)(B) of the Act, 33 U.S.C. § 1314(b)(2)(B), requires the Administrator to consider the following factors: (1) the age of equipment and facilities involved; (2) the process employed; (3) the engineering aspects of the application of various types of control techniques; (4) process changes; (5) the cost of achieving such effluent reduction; (6) non-water quality environmental impact (including energy requirements); and (7) such other factors as the Administrator deems appropriate. The distinction between the 1977 BPCTCA standard and the 1983 BATEA standard is explained succinctly by Senator Muskie in his discussion of the Conference Report:

> In making the determination of "best available" for a category or class, the Administrator is expected to apply the same principles involved in making the determination of "best practicable" (outlined above), except as to cost-benefit analysis. Also, rather than establishing the range of levels in reference to the average of the best performers in an industrial category, the range should, at a minimum, be established with reference to the best performer in any industrial category.

[16] 33 U.S.C. § 1311(b)(2)(A).

> The distinction between "best practicable" and "best available" is intended to reflect the need to press toward increasingly higher levels of control in six-year stages. Through the research and development of new processes, modifications, replacement of obsolete plans and processes, and other improvements in technology, it is anticipated that it should be possible, taking into account the cost of controls, to achieve by 1983 levels of control which approach and achieve the elimination of the discharge of pollutants.
>
> As to the cost of "best available" technology, the Conferees agreed upon the language of the Senate Bill in Section 304(b)(2). While cost should be a factor in the Administrator's judgment, no balancing test will be required. The Administrator will be bound by a test of reasonableness. In this case, the reasonableness of what is "economically achievable" should reflect an evaluation of what needs to be done to move toward the elimination of the discharge of pollutants and what is achievable through the application of available technology—without regard to cost. *Leg. Hist.* at 170, *supra* n.7.

To a certain extent, the 1983 limitations must be anticipatory because no one can possibly know with certainty what will be "the best available technology economically achievable" in 1983. But we do know that the 1983 level of pollution control must be stringent enough to make possible the attainment of the ultimate goal of the Act: the *complete* elimination of pollution discharges to the Nation's waters by 1985. In light of this, EPA's 1983 effluent limitations guidelines must be upheld if the Agency can demonstrate that by 1983 there will be a technology which, if implemented, may reasonably be expected to achieve the standard.

For existing sources in each subcategory of this phase of the pulp and paper industry the 1983 effluent limita-

tions guidelines seek to regulate the discharge of four pollutants: BOD5, TSS, pH and "color". The "color" pollutant results from the various chemical pulping processes of the industry. Spent cooking liquors containing highly colored compounds are removed from the pulp in a washing sequence following the cooking process. The wash water is highly colored and large amounts of color are ultimately discharged into receiving streams. This color ranges from brown to black. EPA seeks to regulate the discharge of this pollutant for four of the five subcategories. For two subcategories (unbleached kraft and unbleached kraft—NSSC (cross recovery)) specific color controls are set in terms of pounds of color per ton of production (and its metric counterpart). For the other two subcategories (ammonia base neutral sulfite semi-chemical and sodium base neutral sulfite semi-chemical) color control is expressed in terms of percentage removal rather than maximum allowed mass units.

The 1983 point source discharge limitations for each of the four pollutants for this unbleached phase of the pulp and paper industry are set out in the following table, found in the Final Development Document. (App. 2464)

BATEA Effluent Limitations

Values in kg/kkg (lbs/ton)

Subcategory	BOD5 30 Day	BOD5 Daily Max	TSS 30 Day	TSS Daily Max
Unbleached Kraft	1.35 (2.7)	2.7 (5.4)	1.85 (3.7)	3.7 (7.4)
NSSC-Ammonia	3.2 (6.4)	6.4 (12.8)	2.6 (5.2)	5.2 (10.4)
NSSC-Sodium	2.25 (4.5)	4.5 (9.0)	2.5 (5.0)	5.0 (10.0)
Unbleached Kraft-NSSC	1.6 (3.2)	3.2 (6.4)	2.1 (4.2)	4.2 (8.4)
Paperboard from Waste Paper	0.65 (1.3)	1.3 (2.6)	0.8 (1.6)	1.6 (3.2)

Subcategory	Color 30 Day	Color Daily Max
Unbleached Kraft	10 (20)	15 (30)
NSSC-Ammonia	75% removal	
NSSC-Sodium	75% removal	
Unbleached Kraft-NSSC	12.5 (25)	25.0 (37.5)[17]
Paperboard from Waste Paper		

pH for all subcategories shall be within the range of 6.0 to 9.0

A. 1983 BOD5 Limitations

API's first challenge is directed at the 1983 BOD5 limitations. These limitations are based on a specific achievable raw waste load for each subcategory. Final limitations are derived by applying to the raw waste load for each subcategory percentage reductions currently achievable by identified external treatment technologies. API's challenge to these limitations is that there is no rational basis to support the raw waste loads for each subcategory.

Table 71 of the Final Development Document (App. 2471) provides the figures being challenged by API. The raw waste loads for the five subcategories are as follows:

Subcategory	Raw Waste kg/kkg	Raw Waste (lbs/ton)
Unbleached Kraft	12.5	(25)
Sodium-NSSC	17.5	(35)
Ammonia-NSSC	25	(50)
Kraft-NSSC	15	(30)
Paperboard-Waste Paper	10	(20)

(App. 2471)

[17] This figure appears in the regulations as promulgated. In the Final Development Document the figure is 18.75 (37.5). There is no explanation for the discrepancy.

API takes the unbleached kraft subcategory as an example and argues that there is no support in the Final Development Document for the BOD5 waste load figure of 25 pounds per ton of production. In this we think they err.

EPA projected the raw waste loads, upon which the 1983 limitations are based, on *actual* raw waste data for mills operating today. As shown in Table 13 of the Final Development Document (App. 2282) the raw waste load used as a basis for the 1983 limitation for the unbleached kraft subcategory is that load currently being attained by Mill UK-2. The raw waste BOD for this mill is 24.5 pounds per ton, which EPA rounded up to 25. The raw waste loads for the other four subcategories were derived from similar tables showing mills presently achieving comparable or in some cases lower amounts of raw waste loads. *See* Tables 14, 18, 19 and 21, Final Development Document. (App. 2288, 2296, 2299 and 2302) Thus contrary to petitioners' assertions, the Agency evidences a rational basis for selecting raw waste loads for each subcategory. In light of this we conclude that API's challenge to the 1983 BOD5 limitations is without merit and we uphold these regulations as promulgated.

B. 1983 TSS Limitations

API challenges the 1983 TSS limitations on two grounds. First, says API, the technology of mixed media filtration has not been demonstrated in actual paper mill waste treatment systems and therefore should not be included as technology for the 1983 standard. Second, API says the Agency has failed to explain its method of calculating final TSS limitations and thus its action is arbitrary and capricious. In light of our examination of the record we reject both contentions.

As explained in Section X of the Final Development Document the 1983 limitation guidelines were determined by using the 1977 TSS limitations as a base and then applying a reduction figure of 60%. This figure was derived from Agency estimates that application of coagulation and filtration technology, including mixed media filtration, would remove 60% of the TSS from biological treatment effluent. Final Development Document at 244. (App. 2470) Although petitioners now contend that mixed media filtration technology has not been actually demonstrated, statements by industry representatives and reports from industry sources contradict this assertion.

The first item in the record which contradicts API is a technical bulletin by the National Council of the Paper Industry for Air and Stream Improvement (NCASI) dated May 1973. (App. 1728) This industry bulletin contains the results of a NCASI study of mixed media filtration at three different mills. The study indicates that the three different types of mills were successful in removing significant amounts of TSS effluents with mixed media filtration. With the use of chemical additives, two of the three systems were able to remove as much as 96% and 97% of the TSS material present. (App. 1740)

The second record item refuting petitioners' contention that mixed media filtration is not a demonstrated technology is a statement by Peter Wrist, Vice President of the Mead Corporation (one of the petitioners) and Chairman of the Board of NCASI, acknowledging that mixed media filtration has shown the potential of removing the TSS material in the amounts estimated by EPA. At an EPA technical hearing on April 4, 1974, following publication of the proposed limitations, Mr. Wrist stated:

> I would like to comment now on the advanced biological solids treatment techniques. The document

indicates that in the proposed standards for BATEA and NSPS that there will be the use of mixed media filters for post-clarification of biological solids.

It is further indicated that with the use of this technique a further reduction of sixty percent of the level leaving the secondary basis is achievable.

The industry has been experimenting with this technique in a number of locations on a pilot-plant scale. We would agree that based on the very limited testing that we have seen, that this level of percentage reduction is achievable. (App. 1971-1972)

This evidence effectively rebuts API's argument that mixed media filtration is not a demonstrated technology. We believe the Administrator, in selecting this particular technology, has shown that mixed media filtration may reasonably be expected to achieve the 1983 TSS standard. We turn to API's second argument on the invalidity of these TSS limitations.

API argues that the Agency has failed to explain its method of calculating final TSS limitations. Once again, taking the unbleached kraft subcategory as an example, API contends that it is not apparent how the Agency arrived at 3.7 pounds of TSS per ton.

EPA's calculations, as set out in the record (App. 3545 *et seq.*) and as explained in its brief, (pp. 86 *et seq.*) are as follows: First, in the unbleached kraft subcategory, reduce the 1977 TSS limitations (12.0) by 60% to account for the predictable effect of filtration and coagulation. This yields 4.8 pounds per ton. Second, determine from the Final Development Document the 1977 BOD5 raw waste load (34 pounds per ton) and the 1983 BOD5 raw waste load (25 pounds per ton). (App. 2452 and 2471) These calculations are necessary because of the direct relationship between reductions in raw waste

BOD5 and reductions in effluent TSS levels. As the Final Development Document explains:

> Generally, the TSS levels are directly affected by the BOD5 raw waste load, as the TSS in biological treatment system effluents generally are biological organisms generated in the removal of BOD5. Final Development Document at 244. (App. 2470)

Third, multiply the 4.8 lbs. by 25/34 to arrive at the 1983 TSS limitations for the unbleached kraft subcategory. The result is 3.5. The actual limitation set by EPA is slightly less stringent: 3.7 lbs. of TSS per ton of production.

We think the Agency's method of calculating TSS limitations for 1983 is not so cloaked in secrecy or so inexplicable and unreasonable that we must hold the regulations invalid. Accordingly we reject API's argument and uphold as valid EPA's 1983 TSS limitations.

C. 1983 Color Limitations

API's third challenge focuses on the 1983 color limitations. API presents three arguments in support of its contention: First, EPA has erred by failing to give adequate consideration to petitioners' comments concerning color regulations. Second, the Agency has set effluent limitations for color removal which cannot be met by the prescribed technology. Third, EPA's cost analysis for color removal is deficient. We will examine these arguments in order.

(1) Comments

Petioners argue that the Agency failed to consider two comments concerning color removal. The first comment is that although color may be objectionable from an aesthetic point of view, it has no harmful effects on receiving waters. The second comment is that the EPA-designated technologies for color removal are unproven and cannot meet the proposed 1983 color limitations.

At the outset we note that during the rulemaking proceedings the Agency afforded all interested parties, including API, two separate comment periods. API responded on both occasions. (App. 1335, 2199) In addition, EPA held a technical hearing in direct response to API's request for an additional opportunity to comment on the proposed regulations. (App. 1935-1936) The transcript of this hearing is part of the record. (App. 1937-2185) Finally, in the preamble to the final regulations the Agency has set out a summary of the significant comments it has received together with the Agency's response. (App. 2199-2204)

We must disagree with API's assertion that the Agency has failed to consider its two comments on color removal. The very questions which API now says were ignored by EPA are specifically addressed by the Agency in the preamble. In preamble comment No. 24 EPA responds to API's suggestion that color has merely an aesthetic impact and is not a proper subject for regulation.[18] In comments Nos. 9 and 22 the Agency responds

[18] (24) It was suggested by several commenters that the color limitation should be removed from the regulations as color has not been established as a pollutant and its inclusion for BATEA and NSPS is not justified.

As discussed in Section VI of the Development Document, the Agency believes that color is a major pollutant parameter and has the following detrimental effects: (1) Color in receiving waters retards sunlight transmission and interferes with photosynthesis thereby reducing productivity of the aquatic community; (2) color alters the natural stream color and is thereby aesthetically displeasing; (3) color has a detrimental effect upon downstream municipal and industrial water users, as color, even when not visually apparent (i.e. turbid streams), must be removed before use in municipal and industrial water supplies; (4) color bodies complex with metal ions, such as iron or copper, forming tar-like residues which remove metals from the stock available to stream organisms for normal metabolism, and the complexes can have direct inhibitory effects on some of the lower scale of organisms in the aquatic community; (5) color is an indicator of potentially inhibitory compounds discharged to the aquatic environment; and (6) color in receiving waters affects fish productivity and fish movements. Therefore, the limitations for color for BATEA and NSPS were not removed from the regulations as the Agency believes that color is a major pollutant parameter.

to petitioners' argument that the technologies designated by EPA as capable of color removal could not meet the proposed limitations. In comment No. 9, the Agency addresses industry comments concerning color removal by the EPA-designated technology of reverse osmosis.[19] In comment No. 22 EPA discusses the technology of lime treatment for removal of color.[20]

We reject API's argument that the 1983 color limitations are invalid for failure to consider API's comments on color removal.

[19] Comment No. 9 is reproduced in that text *infra* at pages 50-51.

[20] (22) Many comments were received that stated that the technology of lime treatment for removal of color has not been fully demonstrated. The commenters stated that a large number of operating problems continue to give difficulty in achieving adequate consistent color removal levels and that specifically, increases of color following color removal during biological treatment are being experienced at two mills employing color removal systems. It was suggested that since the lime treatment technology is still developing, the color removal limitations for new sources should be removed.

The Agency believes that the lime treatment process has been satisfactorily demonstrated and can be applied to new mills. It is the Agency's judgment that the operating problems being experienced by the two full-scale installations are inherent to the specific mills involved. For example, the problem of increases in color levels through the biological treatment systems are not indicative of problems of the lime treatment technology. These are a result of the specific biological systems involved, as color is being leached into the waste water from the ground. In addition, the Agency feels that many of the operating problems can be solved by new mills by being able to design the color removal system into the total mill design rather than adding on the unit operation to an existing mill.

2. Technologies

In their second argument petitioners charge that EPA has set effluent limitations for color removal which cannot be met by the prescribed technologies of lime treatment and reverse osmosis. According to the Final Development Document, Section X, (App. 2463-2472) color reduction for four of the five subcategories regulated by the 1983 BATEA standard is to be achieved by these two external treatment processes. For unbleached kraft and unbleached kraft—NSSC (cross recovery) mills, color reduction can be achieved by minimum lime treatment. For NSSC—Sodium and NSSC—Ammonia mills, color reduction can be achieved by reverse osmosis. These two treatment technologies are explained at length in Section VII of Final Development Document, (App. 2317-2408) but for purposes of our discussion a simplified explanation will suffice:

Minimum Lime—this technology involves the addition of lime to the pulping waste water at a stage of the treatment process prior to biological treatment for reduction of the level of oxygen-demanding substance. The lime combines with the color bodies to form a sludge. The sludge is then settled out of the treated waste. The lime is then either disposed of or recycled and reused. Final Development Document 119-125. (App. 2345-2351)

Reverse Osmosis—this technology is generally employed to remove solutes from mill effluents. Basically, osmosis is the flow of a solvent from a solution of higher solvent concentration to a solution of lower solvent concentration across a semipermeable membrane. The driving force for solvent flow is the osmotic pressure difference which is proportional to the difference in concentration between the two solutions. If external pressure in excess of the osmotic pressure difference is applied, a reversal of solvent flow occurs—hence the term "reverse osmosis". By

these means, water containing impurities can be forced through a suitable membrane, leaving the impurities behind in concentrated solution. Final Development Document 157-163. (App. 2383-2389; *see also* App. 374-382)

It is important to understand EPA's methodology for setting color limitations. Color is discharged from pulp and paper mills in the form of organic "color bodies". These are derived from the various chemical pulping processes involving raw wood. For purposes of the effluent limitations guidelines, color is measured in terms of color units (CU's). Mass units of color are derived by multiplying the number of CU's by the flow of the waste water stream in which they are found. EPA is then able mathematically to translate these calculations into limitations expressed in terms of pounds of color per ton of production and its metric counterpart.[21] EPA's 1983 color limitations for the four subcategories of this phase of the pulp and paper industry are set out below.

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[21] For two subcategories (NSSC-Ammonia and NSSC-Sodium) the 1983 color limitations are expressed in the form of percentage removals. As explained in the Final Development Document, the Agency selected this particular method because of the stage of the development of the identified technology. These particular limitations "will be changed to kilograms of color per metric ton of production (pounds of color per short ton of production) at a later date when the technology has been proven through further development." Final Development Document at 239. (App. 2465)

BATEA Effluent Limitations

Values in kg/kkg (lbs/ton)

Subcategory	Color 30 Day	Daily Max
Unbleached kraft	10 (20)	15 (30)
NSSC-Ammonia	75% removal	——
NSSC-Sodium	75% removal	——
Unbleached kraft-NSSC (cross recovery)	12.5 (25)	25.0 (37.5)
Paperboard from Waste Paper	——	——

With this in mind we proceed to examine API's arguments that the Agency has set effluent limitations which cannot be met by the prescribed technologies of minimum lime treatment and reverse osmosis.

(a) *Minimum Lime Technology*

API's challenge to this technology is based on results obtained by EPA from two full-scale demonstration projects, the Interstate Paper Company at Riceboro, Georgia, and the Continental Can Company at Hodge, Louisiana.

The Interstate Paper Company began operation of its minimum lime technology in March 1968. In December 1971 the company published a 117-page report describing the performance and operating results of color removal by this technology for the unbleached kraft subcategory. (App. 3895) The Continental Can Company began operation of its color removal technology in August 1971, and its 124-page report was published in February 1974. (App. 3762) The Hodge mill is both an unbleached kraft and an unbleached kraft-NSSC (cross recovery) mill and its report dealt with the results obtained in both subcategories.

Both reports from the demonstration projects concluded that minimum lime technology was a highly successful method for achieving significant color removal from mill effluent. For example, at the Hodge mill, average color reduction was 80% for all-kraft effluent with an 85-93% removal result at an upper range of lime dosage. (App. 3766; *see also* App. 3906)

API asserts that EPA's analysis of these two demonstration projects was deficient in two respects: First, EPA failed to consider the point at which it measured color units in mill waste. Second, EPA ignored the additional complications for unbleached kraft-NSSC (cross recovery) which result from the presence of spent semichemical pulping liquor in the waste. We are not persuaded however that EPA omitted consideration of either factor.

API says the Agency failed to recognize that, because lime treatment must precede the biological treatment for successful color removal, a substantial regain in color units exceeding the established color limitations results during the secondary treatment. EPA responds to this contention in comment No. 22 of the preamble to the regulations:

> The Agency believes that the lime treatment process has been satisfactorily demonstrated and can be applied to new mills. It is the Agency's judgment that the operating problems being experienced by the two full-scale installations are inherent to the specific mills involved. For example, the problem of increases in color levels through the biological treatment systems are [sic] not indicative of problems of the lime treatment technology. These are a result of the specific biological systems involved, as color is being leached into the waste water from the ground. In addition, the Agency feels that many of the operating problems can be solved by new mills by

being able to design the color removal system into the total mill design rather than adding on the unit operation to an existing mill. (App. 2201)

In a letter dated March 12, 1974 and made a part of the record (App. 1824-1827), Continental Can Company commented on the proposed 1983 color limitations and the problem of color removal reversion. Continental stated:

> The color of the effluent must be in the 100-150 cu to satisfy the guidelines. Continental's Hodge installation can achieve these levels in the effluent from the color system. However, during passage through the biologic system following color removal reversion takes place. The color of the effluent from the system to the waterway is closer to 350 cu. (App. 1826)

As finally promulgated by EPA, and as explained in the Final Development Document, the color effluent limitations for the unbleached kraft—NSSC (cross recovery) subcategory were based on 380 CU's. (App. 2472) Thus, the EPA appears to have made a reasonable accommodation in the regulations for the phenomenon of color reversion.

API says EPA ignored another complication which prevents the lime treatment from achieving the limitations established by EPA for unbleached kraft-NSSC (cross recovery). According to API the presence of spent semi-chemical pulping liquor in the waste has the effect of *doubling* the percentage of the original color remaining in the treated waste. Thus, argues API, higher color levels are necessarily found in the unbleached kraft-NSSC (cross recovery) subcategory than in the unbleached kraft subcategory effluent.

It does not appear that EPA has ignored this doubling factor in establishing the color limitations for the un-

bleached kraft-NSSC (cross recovery) subcategory. As API acknowledges, these limitations were based on actual operating data from the color removal system at the Continental Can Company, Hodge, Louisiana. The Hodge mill is both an unbleached kraft and an unbleached kraft-NSSC (cross recovery) mill. The limitations for both subcategories were based on actual effluent data and did take into account the higher color levels and lower efficiency of removal. As Table 31 of the Final Development Document indicates, the average color in the unbleached kraft effluent at the Riceboro mill was 120 CU's with a range of monthly averages from a low of 83 CU's to a high of 170 CU's. (App. 2349) Although the maximum monthly discharge was 170 CU's the established limitations for the unbleached kraft subcategory were based on a conservative 250 CU's, apparently to provide a substantial margin of safety. (App. 2472) As discussed earlier, the limitations for the unbleached kraft-NSSC (cross recovery) subcategory were based on 380 CU's—the average level achieved during the maximum month at Hodge. *Id.* This figure *is* slightly more than double the 170 CU's maximum monthly discharge for unbleached kraft. Because limitations for both subcategories were based on actual mill data which reflected this differential, we reject petitioners' contention that EPA established color limitations which ignore this fact. We thus conclude that API's dual attack on the minimum lime technology for color removal is without merit. Accordingly, in the context of this argument, we uphold the 1983 color limitations for the unbleached kraft and unbleached kraft-NSSC (cross recovery) subcategories of these Phase I regulations.

(b) *Reverse Osmosis*

For the subcategories of NSSC-Ammonia and NSSC-Sodium, 1983 color limitations are set at 75% removal and are based on the reverse osmosis technology. The

Final Development Document explains that although this technology has not been demonstrated at "full mill scale", pilot scale studies have indicated that at least 75% reduction of color should be achievable. (App. 2472) The Final Development Document also informs us that

> color limitations of 75% removal for both sodium and ammonia base NSSC subcategories will be changed to kilograms of color per metric ton of production (pounds of color per short ton of production) at a later date when the technology has been proven through further development. (App. 2465)

Petitioners' main contention is that the 1983 color limitations for these two subcategories are prescribed pursuant to technology which is non-existent. The Agency has dealt with this contention in the preamble to the final regulations. Comment No. 9 states:

> (9) A large number of comments were made which stated that color removal by reverse osmosis, which is recommended in the proposed regulations as the color removal technology for NSSC mills, has not been demonstrated. It was stated that the mill referenced in the Development Document as demonstrating reverse osmosis for color removal is an atypical mill and is not using reverse osmosis specifically for color removal. It was pointed out that the reduction in color is actually an additional benefit of the reverse osmosis operations for water reuse. Thus, commenters suggested that the limitations for color for the NSSC subcategories should be removed from the final regulations.
>
> The Agency acknowledged in the Development Document that the technology of reverse osmosis for color removal has not been fully demonstrated. Thus, color removal was not included for new sources for the NSSC subcategories. However, the Agency believes that reverse osmosis will be further demonstrated and will be an available technology for color removal by 1983. In addition, the technologies of ion exchange-resin adsorption and ultrafiltration as discussed in the Development Document are projected to be available to reduce color in pulp and paper mill effluents by 1983. Thus, the Agency is recommending reverse osmosis for NSSC mills for color removal for 1983, but other color removal technologies are also projected to be available for implementation in 1983. (App. 2200)

We have examined the basis for the Agency's belief that reverse osmosis will be an available technology for color removal by 1983. From what is set out in both the Final Development Document at 157-163 (App. 2383-2398) and the various technical papers discussing the capabilities of this technology (App. 374, 378, 383, 3562, 3587), we believe there is adequate record support for the Agency's conclusion that reverse osmosis will be available for color removal by 1983. Accordingly we decline the invitation to find the 1983 color limitations for NSSC-Ammonia and NSSC-Sodium invalid and uphold these regulations.

In summary, we reject petitioners' argument that there is no support in the record for the Agency's conclusion that the 1983 effluent limitations for color removal can be met by the prescribed technologies of lime treatment and reverse osmosis. We now address petitioners' remaining argument.

(3) Cost

API's third and final contention regarding the 1983 color limitations is that EPA has failed to "balance the benefits of color removal against its costs." A subsidiary argument advanced by petitioners is that color is a mat-

ter of aesthetics and there is no evidence that it is harmful to receiving waters. Our response to these allegations will be brief.

First, in part V of this opinion we have considered petitioners' general allegations concerning the Agency's cost analysis. Our examination of the pertinent portions of the Final Development Document, as outlined in part V, confirms our conclusion that the Agency has fully considered the costs of color removal. Moreover, API errs in believing that the Agency must perform a cost-benefit analysis of the 1983 color limitations. Section 304(b)(2)(B) mandates no such balancing for the 1983 limitations, nor does Section 306 require it for the new source performance standards. All that is required under these two sections is that the Administrator consider "the cost of achieving such effluent reduction" in establishing the respective standards. This the Agency has done.

Second, we reject, as did the Agency, the assertion by petitioners that although color may be objectionable on aesthetic grounds, it has no harmful effect on receiving waters. There is record support for the Agency's views, as stated in comment No. 24, quoted in footnote 18, *supra*, that color is a major pollutant. The detrimental effects of color are amply documented in the record. (App. 310, 393, 502, 611, 634, 683, 3043) These are in addition to what the Agency has set out in Section VI of the Final Development Document, referred to in comment No. 24. We find this evidence persuasive and we reject the contention that there is no basis for the Agency's conclusions with respect to color.

Having considered all the challenges to the 1983 effluent limitations guidelines, we find no merit in any of them.

VIII. The New Source Performance Standards

EPA must establish new source performance standards (NSPS) which reflect the application of the "best available demonstrated control technology (BADCT)".[22] Section 306(a)(2) of the Act defines a "new source" as any facility discharging pollutants "the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section." 33 U.S.C. § 1316(a)(2). Section 306(a)(1) defines a new source "standard of performance" as "a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including where practicable, a standard permitting no discharge of pollutants." 33 U.S.C. § 1316(a)(1). In establishing NSPS under Section 306(b)(1)(B), the Administrator is to take into consideration the cost of achieving such effluent reduction and any nonwater quality environmental impact and energy requirements. 33 U.S.C. § 1316(b)(1)(B). He is also required to revise such standards "from time to time, as technology and alternatives change" under procedures outlined in this same section.

The distinction drawn by Congress between new sources and existing sources reflected a belief that new pollution-producing facilities could attain discharge levels at less cost and with fewer difficulties than existing sources. As stated by Senator Muskie in his discussion of the Conference agreement on Section 306:

> In order to assure that a reasonable cost test is met, the Conference agreement clarifies the fact that

[22] 33 U.S.C. § 1316(b)(1)(B).

the Administrator must take into account the cost of compliance with any new source performance standards as applied to any category or class of new sources. The Conferees would expect that this cost test would be considerably more restrictive than the test which would be applied to "best available technology" because pollution control alternatives are available to a new source which are not available to existing sources.

It may be that in most instances, the technology for elimination of discharge of pollutants from new sources can be achieved on a considerably more reasonable basis than for existing sources. The Conferees intend that this alternative be examined carefully and each determination of standards applicable to any category of new sources be periodically re-examined by the Administrator to insure that any new source construction does the best that can be done in terms of performance. *Leg. Hist.* at 172.

The NSPS established by the Administrator regulate the discharge of the same four pollutants controlled under the 1983 BATEA standard: BOD5, TSS, pH and color. The NSPS for BOD5, TSS and pH are more stringent than the 1977 BPCTCA limitations but less so than the 1983 BATEA limitations. The NSPS for color apply to only two subcategories—unbleached kraft and unbleached kraft-NSSC (cross recovery)—and the standards are the same as the 1983 limitations for these subcategories. The following table sets out the New Source Performance Standards as promulgated by EPA.

New Source Performance Standards

Values in kg/kkg (lbs/ton)

Subcategory	BOD5 30 Day	BOD5 Daily Max	TSS 30 Day	TSS Daily Max
Unbleached Kraft	1.55 (3.1)	3.1 (6.2)	3.75 (7.5)	7.5 (15.0)
NSSC-Ammonia	3.75 (7.5)	7.5 (15.0)	3.75 (7.5)	7.5 (15.0)
NSSC-Sodium	2.6 (5.2)	5.2 (10.4)	3.85 (7.7)	7.7 (15.4)
Unbleached Kraft-NSSC	1.9 (3.8)	3.8 (7.6)	4.0 (8.0)	8.0 (16.0)
Paperboard from Waste Paper	0.75 (1.5)	1.5 (3.0)	2.0 (4.0)	4.0 (8.0)

Subcategory	Color 30 Day	Color Daily Max
Unbleached Kraft	10 (20)	15 (30)
NSSC-Ammonia	——	——
NSSC-Sodium	——	——
Unbleached Kraft-NSSC	12.5 (25)	25.0 (37.5)[23]
Paperboard from Waste Paper	——	——

pH for all subcategories shall be within the range of 6.0 to 9.0

API presents three challenges to these NSPS. The first is that EPA's consideration of the economic, energy and environmental costs of the technology prescribed for new sources has been inadequate. We have addressed this contention in part V of this opinion. No further discussion is necessary.

[23] See n. 17, *supra*.

API's second challenge is that in setting NSPS for color EPA has (1) failed to give adequate consideration to petitioners' comments concerning color regulation, (2) set NSPS for color removal which cannot be met by the prescribed technology of lime treatment, and (3) been deficient in its cost analysis for color removal. If these arguments have a familiar ring it is because they are the same arguments raised by API in regard to the 1983 color limitations. In fact, petitioners have reproduced *verbatim* in their brief challenging the new source performance standards the color arguments they made in their brief challenging the 1983 color limitations guidelines. Because the NSPS for color for the unbleached kraft and unbleached kraft-NSSC (cross recovery) subcategories are the same as the 1983 effluent limitations guidelines for these two subcategories, and because petitioners' arguments are identical, our discussion of these contentions in part VII of this opinion applies to petitioners' allegations here. Accordingly, we uphold the NSPS for color for the reasons set out in our discussion of the validity of the 1983 color limitations.

API's third challenge is directed at the NSPS for TSS. Petitioners say these are invalid because the Agency has failed to specify technology capable of removing "non-settleable biological solids" and has not stated what "percentage or reduction" of this material can be achieved by the operations it does describe. As noted in an earlier part of this opinion [24] we have accepted as valid the Agency's answer to these allegations, rejected API's "percentage reduction" argument, and found unsound petitioners' method of framing an argument on the basis of definitions not employed by the Agency and not found in the record. We see no need to add to what we have already said, especially because petitioners have once again

[24] See n. 15, *supra*.

reproduced here almost *verbatim* the argument made in their brief challenging the 1977 and 1983 guidelines.

We believe it appropriate to make one further comment. The extent to which the NSPS for TSS are more stringent than the 1977 limitations for this pollutant is a result of the lower raw waste levels deemed achievable by new sources. The internal technologies needed to attain the raw waste loads for new sources are described in Section VII of the Final Development Document. (App. 2317-2408) The application of these technologies to the NSPS is explained in Sections X and XI at pages 240 and 249-251 of the Final Development Document. (App. 2466, 2475-77) Because the new source performance standards for TSS are based on current performance levels of external technology and available internal technology, the standards are reasonable and we find them valid.

Having considered petitioners' three contentions regarding the invalidity of the NSPS and having found no merit in any of them, we uphold as valid these regulations as promulgated by EPA under the BADCT standard.

IX. Conclusion

This case has presented complex and intertwined legal and technical challenges to regulations promulgated by the Administrator of the Environmental Protection Agency pursuant to the Federal Water Pollution Control Act Amendments of 1972. We have sought to steep ourselves in the knowledge necessary to assure us that the Agency has exercised a reasoned discretion in establishing the regulations. On the record as a whole we believe the Agency has indeed exercised a reasoned discretion. Accordingly, we uphold the 1977 and 1983 effluent limitations guidelines for existing sources and the standards

of performance for new sources for this phase of the Pulp, Paper and Paperboard Point Source Category.

The judgment of the District Court in No. 74-1967 is affirmed. The petitions for review are dismissed.

So Ordered.

APPENDIX B

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

Civil Action No. 74-814

[Filed Sep. 20, 1974, James F. Davey, Clerk]

AMERICAN PAPER INSTITUTE
Plaintiff

v.

RUSSELL TRAIN, *et al.*
Defendants

MEMORANDUM OPINION

Plaintiff brought this action to set aside certain regulations setting forth water pollution effluent limitations guidelines and standards of performance for the pulp, paper and paperboard industries. These regulations were published pursuant to the Federal Water Pollution Control Act Amendments of 1972 ("FWPCA" or "the Act"); Pub.L. 92-500, 86 Stat. 816, 33 U.S.C. § 1251 *et seq.* (October 18, 1972)[1]

The precise issue is whether this Court has jurisdiction to review the regulations in question. Plaintiff contends that the challenged regulations are reviewable in this Court pursuant to the Administrative Procedure Act ("the APA"), 5 U.S.C. 555 *et seq.* Defendants main-

[1] Regulations under challenge were promulgated by EPA at 40 C.F.R. §§ 430.10 through 430.56, 39 Fed. Reg. 18742 (May 29, 1974) and at 40 C.F.R. §§ 401.10 through 401.12, 39 Fed. Reg. 4537 (February 4, 1974) insofar as they are applicable to 40 C.F.R. §§ 430.10 through 430.56 and are therefore reviewable only by a Court of Appeals, pursuant to § 509(b)(1) of the Act, 33 U.S.C. § 1369.

tain that the regulations are effluent *limitations* issued pursuant to § 301 of the Act, 33 U.S.C. § 1311. Plaintiff's argument appears to be that the regulations in question are *guidelines* issued pursuant to § 304(b) of the Act, 33 U.S.C. § 1314(b) or that, if not guidelines, are void limitations promulgated erroneously in the stead of guidelines. In either event, plaintiff claims these regulations are reviewable in this Court under the provisions of the APA (Section 10(a)). Assuming *arguendo* that the regulations are guidelines only, or guidelines divisible from *limitations* for purposes of review, we hold that this Court does not have jurisdiction to review.

The FWPCA at § 304(b) provides for the promulgation of guidelines as an aid to the establishment of effluent limitations standards of performance for existing point sources, such limitations to be promulgated for use in the permit issuance mechanism to be put in effect no later than July 1, 1977. See 33 U.S.C. §§ 1311 and 1314(b). Since guidelines are only an aid in establishing effluent limitations and since limitations, not guidelines, comprise the standards of performance for the issuance of permits, plaintiff cannot be heard to complain that it is "*adversely affected or aggrieved*" by guidelines, the criteria of Section 10(a) of the APA. If these regulations are limitations, which this Court holds they in fact are, § 509 of the FWPCA provides for review by a United States Court of Appeals and not by a United States District Court. We therefore lack subject matter jurisdiction.

As to whether review of these regulations might be had in this Court as well as the Court of Appeals—the law is clear that "when Congress has specified a procedure for judicial review of administrative action, courts will not make nonstatutory remedies available without a showing of patent violation of agency authority or manifest infringement of substantial rights irremediable by the

statutorily prescribed method of review. . . ." *Nader* v. *Volpe*, 151 U.S. App. D.C. 90, 95, 466 F.2d 261, 266 (1972). Accordingly, plaintiff's complaint is dismissed for the jurisdictional reason already set forth. An order consistent with the foregoing has been entered this date.

/s/ J. H. Pratt
JOHN H. PRATT
United States District Judge

September 18, 1974

APPENDIX C

STATUTES INVOLVED

Section 301, 33 U.S.C. § 1311, states:

"Sec. 301. (a) Except as in compliance with this section and sections 302, 306, 307, 318, 402, and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.

"(b) In order to carry out the objective of this Act there shall be achieved—

> "(1)(A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 304(b) of this Act, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 307 of this Act; and
>
> "(B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 203 of this Act prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 304(d)(1) of this Act; or,
>
> "(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to

any State law or regulations (under authority preserved by section 510) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this Act.

"(2)(A) not later than July 1, 1983, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 304(b)(2) of this Act, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 315), that such elimination is technologically and economically achievable for a category or class of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 304(b)(2) of this Act, or (ii) in the case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 307 of this Act; and

"(B) not later than July 1, 1983, compliance by all publicly owned treatment works with the requirements set forth in section 201(g)(2)(A) of this Act.

"(c) The Administrator may modify the requirements of subsection (b)(2)(A) of this section with respect to

any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

"(d) Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

"(e) Effluent limitations established pursuant to this section or section 302 of this Act shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this Act.

"(f) Notwithstanding any other provisions of this Act it shall be unlawful to discharge any radiological, chemical, or biological warfare agent or high-level radioactive waste into the navigable waters.

Section 302, 33 U.S.C. § 1312, states:

"Sec. 302. (a) Whenever, in the judgment of the Administrator, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under section 301(b)(2) of this Act, would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public water supplies, argicultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water, effluent limitations (including alternative effluent control strategies) for such point

source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality.

"(b)(1) Prior to establishment of any effluent limitation pursuant to subsection (a) of this section, the Administrator shall issue notice of intent to establish such limitation and within ninety days of such notice hold a public hearing to determine the relationship of the economic and social costs of achieving any such limitation or limitations, including any economic or social dislocation in the affected community or communities, to the social and economic benefits to be obtained (including the attainment of the objective of this Act) and to determine whether or not such effluent limitations can be implemented with available technology or other alternative control strategies.

"(2) If a person affected by such limitation demonstrates at such hearing that (whether or not such technology or other alternative control strategies are available) there is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this Act), such limitation shall not become effective and the Administrator shall adjust such limitation as it applies to such person.

"(c) The establishment of effluent limitations under this section shall not operate to delay the application of any effluent limitation established under section 301 of this Act.

Section 304, 33 U.S.C. § 1314, states:

"Sec. 304. (a)(1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) criteria for water

quality accurately reflecting the latest scientific knowledge (A) on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, esthetics, and recreation which may be expected from the presence of pollutants in any body of water, including ground water; (B) on the concentration and dispersal of pollutants, or their byproducts, through biological, physical, and chemical processes; and (C) on the effects of pollutants on biological community diversity, productivity, and stability, including information on the factors affecting rates of eutrophication and rates of organic and inorganic sedimentation for varying types of receiving waters.

"(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after the date of enactment of this title (and from time to time thereafter revise) information (A) on the factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone, and the oceans; (B); on the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters and to allow recreational activities in and on the water; and (C) on the measurement and classification of water quality; and (D) for the purpose of section 303, on and the identification of pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives.

"(3) Such criteria and information and revisions thereof shall be issued to the States and shall be published in the Federal Register and otherwise made available to the public.

"(b) For the purpose of adopting or revising effluent limitations under this Act the Administrator shall, after consultation with appropriate Federal and State agencies and other interested persons, publish within one year of enactment of this title, regulations, providing guidelines for effluent limitations, and, at least annually thereafter, revise, if appropriate, such regulations. Such regulations shall—

"(1) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best practicable control technology currently available for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the control measures and practices to be applicable to point sources (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best practicable control technology currently available to comply with subsection (b) (1) of section 301 of this Act shall include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, and shall also take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

"(2) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives for classes and categories of point sources (other than publicly owned treatment works); and

"(B) specify factors to be taken into account in determining the best measures and practices available to comply with subsection (b) (2) of section 301 of this Act to be applicable to any point source (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate; and

"(3) identify control measures and practices available to eliminate the discharge of pollutants from categories and classes of point sources, taking into account the cost of achieving such elimination of the discharge of pollutants.

"(c) The Administrator, after consultation, with appropriate Federal and State agencies and other interested persons, shall issue to the States and appropriate water pollution control agencies within 270 days after enactment of this title (and from time to time thereafter) information on the processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants to implement stand-

ards of performance under section 306 of this Act. Such information shall include technical and other data, including costs, as are available on alternative methods of elimination or reduction of the discharge of pollutants. Such information, and revisions thereof, shall be published in the Federal Register and otherwise shall be made available to the public.

"(d) (1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within sixty days after enactment of this title (and from time to time thereafter) information, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, on the degree of effluent reduction attainable through the application of secondary treatment.

"(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within nine months after the date of enactment of this title (and from time to time thereafter) information on alternative waste treatment management techniques and systems available to implement section 201 of this Act.

"(e) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to appropriate Federal agencies, the States, water pollution control agencies, and agencies designated under section 208 of this Act, within one year after the effective date of this subsection (and from time to time thereafter) information including (1) guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, and (2) processes, procedures, and methods to control pollution resulting from—

"(A) agricultural and silvicultural activities, including runoff from fields and crop and forest lands;

"(B) mining activities, including runoff and siltation from new, currently operating, and abandoned surface and underground mines;

"(C) all construction activity, including runoff from the facilities resulting from such construction;

"(D) the disposal of pollutants in wells or in subsurface excavations;

"(E) salt water intrusion resulting from reductions of fresh water flow from any cause, including extraction of ground water, irrigation, obstruction, and diversion; and

"(F) changes in the movement, flow, or circulation of any navigable waters or ground waters, including changes caused by the construction of dams, leevees, channels, causeways, or flow diversion facilities.

Such information and revisions thereof shall be published in the Federal Register and otherwise made available to the public.

"(f) (1) For the purpose of assisting States in carrying out programs under section 402 of this Act, the Administrator shall publish, within one hundred and twenty days after the date of enactment of this title, and review at least annually thereafter and, if appropriate, revise guidelines for pretreatment of pollutants which he determines are not susceptible to treatment by publicly owned treatment works. Guidelines under this subsection shall be established to control and prevent the discharge into the navigable waters, the contiguous zone, or the ocean (either directly or through publicly owned treatment works) of any pollutant which interferes with, passes through, or otherwise is incompatible with such works.

"(2) When publishing guidelines under this subsection, the Administrator shall designate the category or categories of treatment works to which the guidelines shall apply.

"(g) The Administrator shall, within one hundred and eighty days from the date of enactment of this title, promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to section 401 of this Act or permit application pursuant to section 402 of this Act.

"(h) The Administrator shall (1) within sixty days after the enactment of this title promulgate guidelines for the purpose of establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources of discharge subject to any State program under section 402 of this Act, and (2) within sixty days from the date of enactment of this title promulgate guidelines establishing the minimum procedural and other elements of any State program under section 402 of this Act which shall include:

"(A) monitoring requirements:

"(B) reporting requirements (including procedures to make information available to the public);

"(C) enforcement provisions; and

"(D) funding, personnel qualifications, and manpower requirements (including a requirement that no board or body which approves permit applications or portions thereof shall include, as a member, any person who receives, or has during the previous two years received, a significant portion of his income directly or indirectly from permit holders or applicants for a permit).

"(i) The Administrator shall, within 270 days after the effective date of this subsection (and from time to time thereafter), issue such information on methods, procedures, and processes as may be appropriate to restore and enhance the quality of the Nation's publicly owned fresh water lakes.

"(j)(1) The Administrator shall, within six months from the date of the enactment of this title, enter into agreements with the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior to provide for the maximum utilization of the appropriate programs authorized under other Federal law to be carried out by such Secretaries for the purpose of achieving and maintaining water quality through appropriate implementation of plans approved under section 208 of this Act.

"(2) The Administrator, pursuant to any agreement under paragraph (1) of this subsection is authorized to transfer to the Secretary of Agriculture, the Secretary of the Army, or the Secretary of the Interior any funds appropriate under paragraph (3) of this subsection to supplement any funds otherwise appropriated to carry out appropriate programs authorized to be carried out by such Secretaries.

"(3) There is authorized to be appropriated to carry out the provisions of this subsection, $100,000,000 per fiscal year for the fiscal year ending June 30, 1973, and the fiscal year ending June 30, 1974.

Section 306, 33 U.S.C. § 1316, states:

"Sec. 306. (a) For purposes of this section:

"(1) The term 'standard of performance' means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable

through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

"(2) The term 'new source' means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.

"(3) The term 'source' means any building, structure, facility, or installation from which there is or may be the discharge of pollutants.

"(4) The term 'owner or operator' means any person who owns, leases, operates, controls, or supervises a source.

"(5) The term 'construction' means any placement, assembly, or installation of facilities or equipment (including contractual obligationsm to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

"(b)(1)(A) The Administrator shall, within ninety days after the date of enactment of this title publish (and from time to time thereafter shall revise) a list of categories of sources, which shall, at the minimum, include:

"pulp and paper mills;
"paperboard, builders paper and board mills;
"meat product and rendering processing;
"dairy product processing;
"grain mills;
"canned and preserved fruits and vegetables processing;

"canned and preserved seaford processing;
"sugar processing;
"textile mills;
"cement manufacturing;
"feedlots;
"electroplating;
"organic chemicals manufacturing;
"inorganic chemicals manufacturing;
"plastic and synthetic materials manufacturing;
"soap and detergent manufacturing;
"fertilizer manufacturing;
"petroleum refining;
"iron and steel manufacturing;
"nonferrous metals manufacturing;
"phosphate manufacturing;
"steam electric powerplants;
"ferroalloy manufacturing;
"leather tanning and finishing;
"glass and asbestos manufacturing;
"rubber processing; and
"timber products processing.

"(B) As soon as practicable, but in no case more than one year, after a category of sources is included in a list under subparagraph (A) of this paragraph, the Administrator shall propose and publish regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one hundred and twenty days after publication of such proposed regulations, such standards with such adjustments as he deems appropriate. The Administrator shall, from time to time, as technology and alternatives change, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance, or

revisions thereof, shall become effective upon promulgation. In establishing or revising Federal standards of performance for new sources under this section, the Administrator shall take into consideration the cost of achieving such effluent reduction, and any non-water quality environmental impact and energy requirements.

"(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards and shall consider the type of process employed (including whether batch or continuous).

"(3) The provisions of this section shall apply to any new source owned or operated by the United States.

"(c) Each State may develop and submit to the Administrator a procedure under State law for applying and enforcing standards of performance for new sources located in such State. If the Administrator finds that the procedure that the law of any State require the application and enforcement of standards of performance to at least the same extent as required by this section, such State is authorized to apply and enforce such standards of performance (except with respect to new sources owned or operated by the United States).

"(d) Notwithstanding any other provision of this Act, any point source the construction of which is commenced after the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 and which is so constructed as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of the Internal Revenue Code of 1954, which ever period ends first.

"(e) After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

Section 307, 33 U.S.C. § 1317, states:

"Sec. 307. (a) (1) The Administrator shall, within ninety days after the date of enactment of this title, publish (and from time to time thereafter revise) a list which includes any toxic pollutant or combination of such pollutants for which an effluent standard (which may include a prohibition of the discharge of such pollutants or combinations of such pollutants) will be established under this section. The Administrator in publishing such list shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

"(2) Within one hundred and eighty days after the date of publication of any list, or revision thereof, containing toxic pollutants or combination of pollutants under paragraph (1) of this subsection, the Administrator, in accordance with section 553 of title 5 of the United States Code, shall publish a proposed effluent standard (or a prohibition) for such pollutant or combination of pollutants which shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and of the nature and extent of the effect of the toxic pollutant on such organisms, and he shall publish a notice for a public hearing on such proposed standard to be held within thirty days. As soon as possible after such hear-

ing, but not later than six months after publication of the proposed effluent standard (or prohibition), unless the Administrator finds, on the record, that a modification of such proposed standard (or prohibition) is justified based on a preponderance of evidence adduced at such hearings, such standard (or prohibition) shall be promulgated.

"(3) If after a public hearing the Administrator finds that a modification of such proposed standard (or prohibition) is justified, a revised effluent standard (or prohibition) for such pollutant or combination of pollutants shall be promulgated immediately. Such standard (or prohibition) shall be reviewed and, if appropriate, revised at least every three years.

"(4) Any effluent standard promulgated under this section shall be at that level which the Administrator determines provides an ample margin of safety.

"(5) When proposing or promulgating any effluent standard (or prohibition) under this section, the Administrator shall designate the category or categories of sources to which the effluent standard (or prohibition) shall apply. Any disposal of dredged material may be included in such a category of sources after consultation with the Secretary of the Army.

"(6) Any effluent standard (or prohibition) established pursuant to this section shall take effect on such date or dates as specified in the order promulgating such standard, but in no case more than one year from the date of such promulgation.

"(7) Prior to publishing any regulations pursuant to this section the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, States, independent experts, and Federal departments and agencies.

"(b) (1) The Administrator shall, within one hundred and eighty days after the date of enactment of this title and from time to time thereafter, publish proposed regulations establishing pretreatment standards for introduction of pollutants into treatment works (as defined in section 212 of this Act) which are publicly owned for those pollutants which are determined not to be susceptible to treatment by such treatment works or which would interfere with the operation of such treatment works. Not later than ninety days after such publication, and after opportunity for public hearing, the Administrator shall promulgate such pretreatment standards. Pretreatment standards under this subsection shall specify a time for compliance not to exceed three years from the date of promulgation and shall be established to prevent the discharge of any pollutant through treatment works (as defined in section 212 of this Act) which are publicly owned, which pollutant interferes with, passes through, or otherwise is incompatible with such works.

"(2) The Administrator shall, from time to time, as control technology, processes, operating methods, or other alternatives change, revise such standards following the procedure established by this subsection for promulgation of such standards.

"(3) When proposing or promulgating any pretreatment standard under this section, the Administrator shall designate the category or categories of sources to which such standard shall apply.

"(4) Nothing in this subsection shall affect any pretreatment requirement established by any State or local law not in conflict with any pretreatment standard established under this subsection.

"(c) In order to insure that any source introducing pollutants into a publicly owned treatment works, which source would be a new source subject to section 306 if it

were to discharge pollutants, will not cause a violation of the effluent limitations established for any such treatment works, the Administrator shall promulgate pretreatment standards for the category of such sources simultaneously with the promulgation of standards of performance under section 306 for the equivalent category of new sources. Such pretreatment standards shall prevent the discharge of any pollutant into such treatment works, which pollutant may interfere with, pass through, or otherwise be incompatible with such works.

"(d) After the effective date of any effluent standard or prohibition or pretreatment standard promulgated under this section, it shall be unlawful for any owner or operator of any source to operate any source in violation of any such effluent standard or prohibition or pretreatment standard.

Section 309, 33 U.S.C. § 1319, states:

"Sec. 309. (a) (1) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of any condition or limitation which implements section 301, 302, 306, 307, or 308 of this Act in a permit issued by a State under an approved permit program under section 402 of this Act, he shall proceed under his authority in paragraph (3) of this subsection or he shall notify the person in alleged violation and such State of such finding. If beyond the thirtieth day after the Administrator's notification the State has not commenced appropriate enforcement action, the Administrator shall issue an order requiring such person to comply with such condition or limitation or shall bring a civil action in accordance with subsection (b) of this section.

"(2) Whenever, on the basis of information available to him, the Administrator finds that violations of permit conditions or limitations as set forth in paragraph (1)

of this subsection are so widespread that such violations appear to result from a failure of the State to enforce such permit conditions or limitations effectively, he shall so notify the State. If the Administrator finds such failure extends beyond the thirtieth day after such notice, he shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such conditions and limitations (hereafter referred to in this section as the period of 'federally assumed enforcement'), he Administrator shall enforce any permit condition or limitation with respect to any person—

"(A) by issuing an order to comply with such condition or limitation, or

"(B) by bringing a civil action under subsection (b) of this section.

"(3) Whenever on the basis of any information available to him the Administrator finds that any person is in violation of section 301, 302, 306, 307, or 308 of this Act, or is in violation of any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by him or by a State, he shall issue an order requiring such person to comply with such section or requirement, or he shall bring a civil action in accordance with subsection (b) of this section.

"(4) A copy of any order issued under this subsection shall be sent immediately by the Administrator to the State in which the violation occurs and other affected States. Any order issued under this subsection shall be by personal service and shall state with reasonable specificity the nature of the violation, specify a time for compliance, not to exceed thirty days, which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in

which an order under this subsection (or notice to a violator under paragraph (1) of this subsection) is issued to a corporation, a copy of such order (or notice) shall be served on any appropriate corporate officers. An order issued under this subsection relating to a violation of section 308 of this Act shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator concerning the alleged violation.

"(b) The Administrator is authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction, for any violation for which he is authorized to issue a compliance order under subsection (a) of this section. Any action under this subsection may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such action shall be given immediately to the appropriate State.

"(c) (1) Any person who willfully or negligently violates section 301, 302, 306, 307, or 308 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator or by a State, shall be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or by both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or by both.

"(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Act or who falsifies,

tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Act, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six months, or by both.

"(3) For the purposes of this subsection, the term 'person' shall mean, in addition to the definition contained in section 502(5) of this Act, any responsible corporate officer.

"(d) Any person who violates section 301, 302, 306, 307, or 308 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act by the Administrator, or by a State, and any person who violates any order issued by the Administrator under subsection (a) of this section, shall be subject to a civil penalty not to exceed $10,000 per day of such violation.

"(e) Whenever a municipality is a party to a civil action brought by the United States under this section, the State in which such municipality is located shall be joined as a party. Such State shall be liable for payment of any judgment, or any expenses incurred as a result of complying with any judgment, entered against the municipality in such action to the extent that the laws of that State prevent the municipality from raising revenues needed to comply with such judgment.

Section 401, 33 U.S.C. § 1341, states:

"Sec. 401. (a) (1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate

water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 306, and 307 of this Act. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under sections 301(b) and 302, and there is not an applicable standard under sections 306 and 307, the State shall so certify, except that any such certification shall not be deemed to satisfy section 511(c) of this Act. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.

"(2) Upon receipt of such application and certification the licensing or permitting agency shall immediately notify the Administrator of such application and certification. Whenever such a discharge may affect, as determined by the Administrator, the quality of the waters of any other State, the Administrator within thirty days of the date of notice of application for such Federal license

or permit shall so notify such other State, the licensing or permitting agency, and the applicant. If, within sixty days after receipt of such notification, such other State determines that such discharge will affect the quality of its waters so as to violate any water quality requirement in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. The Administrator shall at such hearing submit his evaluation and recommendations with respect to any such objection to the licensing or permitting agency. Such agency, based upon the recommendations of such State, the Administrator, and upon any additional evidence, if any, presented to the agency at the hearing, shall condition such license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.

"(3) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of sections 301, 302, 306, and 307 of this Act because of changes since the construction license or

permit certification was issued in (A) the construction or operation of the facility, (B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating license or permit has failed to provide the certifying State, or, if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of section 301, 302, 306, or 307 of this Act.

"(4) Prior to the initial operation of any federally licensed or permitted facility or activity which may result in any discharge into the navigable waters and with respect to which a certification has been obtained pursuant to paragraph (1) of this subsection, which facility or activity is not subject to a Federal operating license or permit, the licensee or permittee shall provide an opportunity for such certifying State, or, if appropriate, the interstate agency or the Administrator to review the manner in which the facility or activity shall be operated or conducted for the purposes of assuring that applicable effluent limitations or other limitations or other applicable water quality requirements will not be violated. Upon notification by the certifying State, or if appropriate, the interstate agency or the Administrator that the operation of any such federally licensed or permitted facility or activity will violate applicable effluent limitations or other limitations or other water quality requirements such Federal agency may, after public hearing, suspend such license or permit. If such license or permit is suspended, it shall remain suspended until notification is received from the certifying State, agency, or Administrator, as the case may be, that there is reasonable assurance that such facility or activity will not violate the applicable provisions of section 301, 302, 306, or 307 of this Act.

"(5) Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this Act that such facility or activity has been operated in violation of the applicable provisions of section 301, 302, 306, or 307 of this Act.

"(6) No Federal agency shall be deemed to be an applicant for the purposes of this subsection.

"(7) Except with respect to a permit issued under section 402 of this Act, in any case where actual construction of a facility has been lawfully commenced prior to April 3, 1970, no certification shall be required under this subsection for a license or permit issued after April 3, 1970, to operate such facility, except that any such license or permit issued without certification shall terminate April 3, 1973, unless prior to such termination date the person having such license or permit submits to the Federal agency which issued such license or permit a certification and otherwise meets the requirements of this section.

"(b) Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any

such department or agency or State or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

"(c) In order to implement the provisions of this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licensees or permittees, and to make an appropriate charge for such use. Moneys received from such licensees or permittees shall be deposited in the Treasury as miscellaneous receipts.

"(d) Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 301 or 302 of this Act, standard of performance under section 306 of this Act, or prohibition, effluent standard, or pretreatment standard under section 307 of this Act, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

Section 402, 33 U.S.C. § 1342, states:

"Sec. 402. (a)(1) Except as provided in sections 318 and 404 of this Act, the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 301(a), upon condition that such discharge will meet either all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or prior to the taking of necessary implementing actions relating to all such requirements, such conditions

as the Administrator determines are necessary to carry out the provisions of this Act.

"(2) The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate.

"(3) The permit program of the Administrator under paragraph (1) of this subsection, and permits issued thereunder, shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.

"(4) All permits for discharges into the navigable waters issued pursuant to section 13 of the Act of March 3, 1899, shall be deemed to be permits issued under this title, and permits issued under this title shall be deemed to be permits issued under section 13 of the Act of March 3, 1899, and shall continue in force and effect for their term unless revoked, modified, or suspended in accordance with the provisions of this Act.

"(5) No permit for a discharge into the navigable waters shall be issued under section 13 of the Act of March 3, 1899, after the date of enactment of this title. Each application for a permit under section 13 of the Act of March 3, 1899, pending on the date of enactment of this Act shall be deemed to be an application for a permit under this section. The Administrator shall authorize a State, which he determines has the capability of administering a permit program which will carry out the objective of this Act, to issue permits for discharges into the navigable waters within the jurisdiction of such State. The Administrator may exercise the authority granted him by the preceding sentence only during the period which begins on the date of enactment of this Act and

ends either on the ninetieth day after the date of the first promulgation of guidelines required by section 304 (h) (2) of this Act, or the date of approval by the Administrator of a permit program for such State under subsection (b) of this section, whichever date first occurs, and no such authorization to a State shall extend beyond the last day of such period. Each such permit shall be subject to such conditions as the Administrator determines are necessary to carry out the provisions of this Act. No such permit shall issue if the Administrator objects to such issuance.

"(b) At any time after the promulgation of the guidelines required by subsection (h) (2) of section 304 of this Act, the Governor of each State desiring to administer its own permit program for discharges into navigable waters within its jurisdiction may submit to the Administrator a full and complete description of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State water pollution control agencies which have independent legal counsel), or from the chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program. The Administrator shall approve each such submitted program unless he determines that adequate authority does not exist:

"(1) To issue permits which—

"(A) apply, and insure compliance with, any applicable requirements of sections 301, 302, 306, 307, and 403;

"(B) are for fixed terms not exceeding five years; and

"(C) can be terminated or modified for cause including, but not limited to, the following:

"(i) violation of any condition of the permit;

"(ii) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;

"(iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

"(D) control the disposal of pollutants into wells;

"(2) (A) To issue permits which apply, and insure compliance with, all applicable requirements of section 308 of this Act, or

"(B) To inspect, monitor, enter, and require reports to at least the same extent as required in section 308 of this Act;

"(3) To insure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application;

"(4) To insure that the Administrator receives notice of each application (including a copy thereof) for a permit;

"(5) To insure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its

failure to so accept such recommendations together with its reasons for so doing;

"(6) To insure that no permit will be issued if, in the judgment of the Secretary of the Army acting through the Chief of Engineers, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby;

"(7) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement;

"(8) To insure that any permit for a discharge from a publicly owned treatment works includes conditions to require adequate notice to the permitting agency of (A) new introductions into such works of pollutants from any source which would be a new source as defined in section 306 if such source were discharging pollutants, (B) new introductions of pollutants into such works from a source which would be subject to section 301 if it were discharging such pollutants, or (C) a substantial change in volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time of issuance of the permit. Such notice shall include information on the quality and quantity of effluent to be introduced into such treatment works and any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works; and

"(9) To insure that any industrial user of any publicly owned treatment works will comply with sections 204(b), 307, and 308.

"(c)(1) Not later than ninety days after the date on which a State has submitted a program (or revision thereof) pursuant to subsection (b) of this section, the Administrator shall suspend the issuance of permits under subsection (a) of this section as to those navigable waters subject to such program unless he determines that the State permit program does not meet the requirements of subsection (b) of this section or does not conform to the guidelines issued under section 304(h)(2) of this Act. If the Administrator so determines, he shall notify the State of any revisions or modifications necessary to conform to such requirements or guidelines.

"(2) Any State permit program under this section shall at all times be in accordance with this section and guidelines promulgated pursuant to section 304(h)(2) of this Act.

"(3) Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

"(d)(1) Each State shall transmit to the Administrator a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State.

"(2) No permit shall issue (A) if the Administrator within ninety days of the date of his notification under subsection (b)(5) of this section objects in writing to the issuance of such permit, or (B) if the Administrator within ninety days of the date of transmittal of the proposed permit by the State objects in writing to the

issuance of such permit as being outside the guidelines and requirements of this Act.

"(3) The Administrator may, as to any permit application, waive paragraph (2) of this subsection.

"(e) In accordance with guidelines promulgated pursuant to subsection (h) (2) of section 304 of this Act, the Administrator is authorized to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any category (including any class, type, or size within such category) of point sources within the State submitting such program.

"(f) The Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any State with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

"(g) Any permit issued under this section for the discharge of pollutants into the navigable waters from a vessel or other floating craft shall be subject to any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

"(h) In the event any condition of a permit for discharges from a treatment works (as defined in section 212 of this Act) which is publicly owned is violated, a State with a program approved under subsection (b) of this section or the Administrator, where no State program is approved, may proceed in a court of competent jurisdiction to restrict or prohibit the introduction of any pollutant into such treatment works by a source

not utilizing such treatment works prior to the finding that such condition was violated.

"(i) Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to section 309 of this Act.

"(j) A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or permit, or portion thereof, shall further be available on request for the purpose of reproduction.

"(k) Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 309 and 505, with sections 301, 302, 306, 307, and 403, except any standard imposed under section 307 for a toxic pollutant injurious to human health. Until December 31, 1974, in any case where a permit for discharge has been applied for pursuant to this section, but final administrative disposition of such application has not been made, such discharge shall not be a violation of (1) section 301, 306, or 402 of this Act, or (2) section 13 of the Act of March 3, 1899, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For the 180-day period beginning on the date of enactment of the Federal Water Pollution Control Act Amendments of 1972, in the case of any point source discharging any pollutant or combination of pollutants immediately prior to such date of enactment which source is not subject to section 13 of the Act of March 3, 1899, the discharge by such source shall not be a violation of this Act if such a source applies for a permit for discharge pursuant to this section within such 180-day period.

Section 502, 33 U.S.C. § 1362, states:

"Sec. 502. Except as otherwise specifically provided, when used in this Act:

"(1) The term 'State water pollution control agency' means the State agency designated by the Governor having responsibility for enforcing State laws relating to the abatement of pollution.

"(2) The term 'interstate agency' means an agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator.

"(3) The term 'State' means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands.

"(4) The term 'municipality' means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of this Act.

"(5) The term 'person' means an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.

"(6) The term 'pollutant' means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equip-

ment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) 'sewage from vessels' within the meaning of section 312 of this Act; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

"(7) The term 'navigable waters' means the waters of the United States, including the territorial seas.

"(8) The term 'territorial seas' means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seward limit of inland waters, and extending seaward a distance of three miles.

"(9) The term 'contiguous zone' means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone.

"(10) The term 'ocean' means any portion of the high seas beyond the contiguous zone.

"(11) The term 'effluent limitation' means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.

"(12) The term 'discharge of a pollutant' and the term 'discharge of pollutants' each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.

"(13) The term 'toxic pollutant' means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

"(14) The term 'point source' means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

"(15) The term 'biological monitoring' shall mean the determination of the effect on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (A) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (B) at appropriate frequencies and locations.

"(16) The term 'discharge' when used without qualification includes a discharge of a pollutant, and a discharge of pollutants.

"(17) The term 'schedule of compliance' means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

"(18) The term 'industrial user' means those industries identified in the Standard Industrial Classification Manual, Bureau of the Budget, 1967, as amended and supplemented, under the category 'Division D—Manufacturing' and such other classes of significant waste producers as, by regulation, the Administrator deems appropriate.

"(19) The term 'pollution' means the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

Section 505, 33 U.S.C. § 1365, states:

"Sec. 505. (a) Except as provided in subsection (b) of this section, any citizen may commence a civil action on his own behalf—

> "(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of (A) an effluent standard or limitation under this Act or (B) an order issued by the Administrator or a State with respect to such a standard or limitation, or
>
> "(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator.

The district courts shall have jurisdiction, without regard to the amount of controversy or the citizenship of the

parties, to enforce such an effluent standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties under section 309 (d) of this Act.

"(b) No action may be commenced—

"(1) under subsection (a) (1) of this section—

"(A) prior to sixty days after the plaintiff has given notice of the alleged violation (i) to the Administrator, (ii) to the State in which the alleged violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

"(B) if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States, or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any citizen may intervene as a matter of right.

"(2) under subsection (a) (2) of this section prior to sixty days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of sections 306 and 307(a) of this Act. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

"(c) (1) Any action respecting a violation by a discharge source of an effluent standard or limitation or an order respecting such standard or limitation may be brought under this section only in the judicial district in which such source is located.

"(2) In such action under this section, the Administrator, if not a party, may intervene as a matter of right.

"(d) The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

"(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).

"(f) For purposes of this section, the term 'effluent standard or limitation under this Act' means (1) effective July 1, 1973, an unlawful act under subsection (a) of section 301 of this Act; (2) an effluent limitation or other limitation under section 301 or 302 of this Act; (3) standard of performance under section 306 of this Act; (4) prohibition, effluent standard or pretreatment standards under section 307 of this Act; (5) certification under section 401 of this Act; or (6) a permit or condition thereof issued under section 402 of this Act, which is in effect under this Act (including a requirement applicable by reason of section 313 of this Act).

"(g) For the purposes of this section the term 'citizen' means a person or persons having an interest which is or may be adversely affected.

"(h) A Governor of a State may commence a civil action under subsection (a), without regard to the limitations of subsection (b) of this section, against the

Administrator where there is alleged a failure of the Administrator to enforce an effiuent standard or limitation under this Act the violation of which is occurring in another State and is causing an adverse effect on the public health or welfare in his State, or is causing a violation of any water quality requirement in his State.

Section 509, 33 U.S.C. § 1369, states:

"Sec. 509. (a) (1) For purposes of obtaining information under section 305 of this Act, or carrying out section 507(e) of this Act, the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for effluent data, upon a showing satisfactory to the Administrator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act, or when relevant in any proceeding under this Act. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpena served upon any person under this subsection, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator, to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

"(2) The district courts of the United States are authorized, upon application by the Administrator, to issue subpenas for attendance and testimony of witnesses and the production of relevant papers, books, and documents, for purposes of obtaining information under sections 304(b) and (c) of this Act. Any papers, books, documents, or other information or part thereof, obtained by reason of such a subpena shall be subject to the same requirements as are provided in paragraph (1) of this subsection.

"(b) (1) Review of the Administrator's action (A) in promulgating any standard of performance under section 306, (B) in making any determination pursuant to section 306(b) (1) (C), (C) in promulgating any effluent standard, prohibition, or treatment standard under section 307, (D) in making any determination as to a State permit program submitted under section 402(b), (E) in approving or promulgating any effluent limitation or limitation under section 301, 302, or 306, and (F) in issuing or denying any permit under section 402, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such determination, approval, promulgation, issuance or denial, or after such date only if such application is based solely on grounds which arose after such ninetieth day.

"(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) of this subsection shall not be subject to judicial

review in any civil or criminal proceeding for enforcement.

"(c) In any judicial proceeding brought under subsection (b) of this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

APPENDIX D

PART 430—PULP, PAPER, AND PAPERBOARD POINT SOURCE CATEGORY

Subpart A—Unbleached Kraft Subcategory

Sec.

430.10 Applicability; description of the unbleached kraft subcategory.

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430.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

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Subpart B—Sodium Based Neutral Sulfite Semi-Chemical Subcategory

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Subpart C—Ammonia Base Neutral Sulfite Semi-Chemical Subcategory

430.30 Applicability; description of the ammonia base neutral sulfite semi-chemical subcategory.

430.31 Specialized definitions.

430.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

430.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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430.51 Specialized definitions.

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430.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

430.54 Pretreatment standards for existing sources.

430.55 Standards of performance for new sources.

430.56 Pretreatment standards for new sources.

AUTHORITY: Secs. 301, 304 (b) and (c), 306 (b) and (c) and 307 (c) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), and 1317 (c)) 86 Stat. 816 et seq.; Pub. L. 92-500.

SOURCE: 39 FR 18747, May 29, 1974, unless otherwise noted.

Subpart A—Unbleached Kraft Subcategory

§ 430.10 Applicability; description of the unbleached kraft subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of pulp and paper by unbleached kraft mills. When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

§ 430.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) Color shall mean that color as measured by the testing method presented in the National Council for Air and Stream Improvement, (Inc.) "Technical Bulletin 253," December 1971. Color units are to be assumed equal to mg/1.

(c) Total suspended nonfilterable solids (TSS) shall mean TSS as measured by the technique utilizing glass fiber disks as specified in "Standard Methods for the Examination of Water and Wastewater" (13th Edition).

(d) Production shall be defined as the annual average off the machine (air-dry tons).

§ 430.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to col-

lect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application

of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	5.6	2.8
TSS	12.0	6.0
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	11.2	5.6
TSS	24.0	12.0
pH	Within the range 6.0 to 9.0.	

§ 430.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	2.7	1.35
TSS	3.7	1.85
Color	15.0	10.0
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	5.4	2.7
TSS	7.4	3.7
Color	30.0	20.0
pH	Within the range 6.0 to 9.0.	

§ 430.14 Pretreatment standards for existing sources.

The pretreatment standards under section 307(b) of the Act for a source within the unbleached kraft subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR Parts 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
pH	No limitation.
BOD5	Do.
TSS	Do.

[40 FR 6445, Feb. 11, 1975]

§ 430.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	3.1	1.55
TSS	7.5	3.75
Color	15.0	10.0
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	6.2	3.1
TSS	15.0	7.5
Color	30.0	20.0
pH	Within the range 6.0 to 9.0.	

§ 430.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the unbleached kraft subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to

the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 430.15; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart B—Sodium Based Neutral Sulfite Semi-Chemical Subcategory

§ 430.20 Applicability; description of the sodium based neutral sulfite semi-chemical subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of pulp and paper by sodium base neutral sulfite semi-chemical mills. When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

§ 430.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) Color shall mean that color as measured by the testing method presented in the National Council for Air and Stream Improvement, (Inc.) "Technical Bulletin 253," December 1971. Color units are to be assumed equal to mg/1.

(c) Total suspended nonfilterable solids (TSS) shall mean TSS as measured by the technique utilizing glass fiber disks as specified in "Standard Methods for the Examination of Water and Wastewater" (13th Edition).

(d) Production shall be defined as the annual average off the machine (air-dry tons).

§ 430.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding

that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	8.7	4.35
TSS	11.0	5.5
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	17.4	8.7
TSS	22.0	11.0
pH	Within the range 6.0 to 9.0.	

§ 430.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	4.5	2.25
TSS	5.0	2.5
Color	75 percent removal.	
pH	Within the range 6.0 to 9.0.	
BOD5	9.0	4.5
TSS	10.0	5.0
Color	75 percent removal.	
pH	Within the range of 6.0 to 9.0.	

§ 430.24 Pretreatment standards for existing sources.

The pretreatment standards under section 307(b) of the Act for a source within the sodium based neutral sulfite semi-chemical subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which

would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
pH	No limitation.
BOD5	Do.
TSS	Do.

[40 FR 6446, Feb. 11, 1975]

§ 430.25 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	5.2	2.6
TSS	7.7	3.85
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	10.4	5.2
TSS	15.4	7.7
pH	Within the range 6.0 to 9.0.	

§ 430.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the sodium based neutral sulfite semi-chemical subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

> In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 430.25: *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart C—Ammonia Base Neutral Sulfite Semi-Chemical Subcategory

§ 430.30 Applicability; description of the ammonia base neutral sulfite semi-chemical subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of pulp and paper by ammonia base neutral sulfite semi-chemical mills. When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

§ 430.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) Color shall mean that color as measured by the testing method presented in the National Council for Air and Stream Improvement, (Inc.) "Technical Bulletin 253," December 1971. Color units are to be assumed equal to mg/1.

(c) Total suspended nonfilterable solids (TSS) shall mean TSS as measured by the technique utilizing glass fiber disks as specified in "Standard Methods for the Examination of Water and Wastewater" (13th Edition).

(d) Production shall be defined as the annual average off the machine (air-dry tons).

§ 430.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally

different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	8.0	4.0
TSS	10.0	5.0
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	16.0	8.0
TSS	20.0	10.0
pH	Within the range 6.0 to 9.0.	

§ 430.33 Effluent limitations guidelines representing the the degree of effluent reduction attainable by application of the best available technology economically achievable.

The following limitations establish the quantity or quality of the pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	6.4	3.2
TSS	5.2	2.6
Color	75 percent removal.	
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	12.8	6.4
TSS	10.4	5.2
Color	75 percent removal.	
pH	Within the range 6.0 to 9.0.	

§ 430.34 Pretreatment standards for existing sources.

The pretreatment standards under section 307(b) of the Act for a source within the ammonia base neutral sulfite semi-chemical subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the

navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
pH	No limitation.
BOD5	Do.
TSS	Do.

[40 FR 6446, Feb. 11, 1975]

§ 430.35 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	7.5	3.75
TSS	7.5	3.75
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	15.0	7.5
TSS	15.0	7.5
pH	Within the range 6.0 to 9.0.	

§ 430.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the ammonia base neutral sulfite semi-chemical subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

> In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 430.35: *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart D—Unbleached Kraft—Neutral Sulfite Semi-Chemical (Cross Recovery) Subcategory

§ 430.40 Applicability; description of the unbleached kraft—neutral sulfite semi-chemical (cross recovery) subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of pulp and paper by combined unbleached kraft and neutral sulfite semi-chemical (NSSC) mills, wherein the spent NSSC cooking liquor is burned within the unbleached kraft chemical recovery system. When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

§ 430.41 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) Color shall mean that color as measured by the testing method presented in the National Council for Air and Stream Improvement, (Inc.) "Technical Bulletin 253," December 1971. Color units are to be assumed equal to mg/1.

(c) Total suspended nonfilterable solids (TSS) shall mean TSS as measured by the technique utilizing glass fiber disks as specified in "Standard Methods for the Examination of Water and Wastewater" (13th Edition).

(d) Production shall be defined as the annual average off the machine (air-dry tons).

§ 430.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. Any individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger

are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	8.0	4.0
TSS	12.5	6.25
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	16.0	8.0
TSS	25.0	12.5
pH	Within the range 6.0 to 9.0.	

§ 430.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	3.2	1.6
TSS	4.2	2.1
Color	25.0	12.5
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	6.4	3.2
TSS	8.4	4.2
Color	37.5	25.0
pH	Within the range 6.0 to 9.0.	

§ 430.44 Pretreatment standards for existing sources.

The pretreatment standards under section 307(b) of the Act for a source within the unbleached kraft-neutral sulfite semi-chemical (cross recovery) subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part

128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of the pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart.

Pollutant or pollutant property:	*Pretreatment standard*
BOD5	No limitation.
TSS	Do.
pH	Do.

[40 FR 6446, Feb. 11, 1975]

§ 430.45 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	3.8	1.9
TSS	8.0	4.0
Color	25.0	12.5
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	7.6	3.8
TSS	16.0	8.0
Color	37.5	25.0
pH	Within the range 6.0 to 9.0.	

§ 430.46 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the unbleached kraft—neutral sulfite semi-chemical (cross recovery) subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

> In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 430.45: *Provided*, That if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage

> of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart E—Paperboard From Waste Paper Subcategory

§ 430.50 Applicability; description of the paperboard from waste paper subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of paperboard from waste paper. When a plant is subject to effluent limitations covering more than one subcategory, the discharge limitation shall be the aggregate of the limitations applicable to the total production covered by each subcategory.

§ 430.51 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR Part 401 shall apply to this subpart.

(b) Total suspended nonfilterable solids (TSS) shall mean TSS as measured by the technique utilizing glass fiber disks as specified in "Standard Methods for the Examination of Water and Wastewater" (13th Edition).

(c) Production shall be defined as the annual average off the machine (air-dry tons).

§ 430.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able

to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facilitity compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	3.0	1.5
TSS	5.0	2.5
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD5	6.0	3.0
TSS	10.0	5.0
pH	Within the range 6.0 to 9.0.	

§ 430.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations established the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD*5*	1.3	0.65
TSS	1.6	.8
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD*5*	2.6	1.3
TSS	3.2	1.6
pH	Within the range 6.0 to 9.0.	

§ 430.54 Pretreatment standards for existing sources.

The pretreatment standards under section 307(b) of the Act for a source within the paperboard from waste paper subcategory which is a user of a publicly owned treatment works and a major contributing industry as defined in 40 CFR Part 128 (and which would be an existing point source subject to section 301 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR Part 128, except that, for the purpose of this section, 40 CFR 128.121, 128.122, 128.132, and 128.133 shall not apply. The following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties controlled by this section which may be discharged to a publicly owned treatment works by a point source subject to the provisions of this subpart:

Pollutant or pollutant property:	*Pretreatment standard*
pH	No limitation.
BOD*5*	Do.
TSS	Do.

[40 FR 6446, Feb. 11, 1975]

§ 430.55 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD*5*	1.5	0.75
TSS	4.0	2.0
pH	Within the range 6.0 to 9.0.	
	English units (pounds per ton of product)	
BOD*5*	3.0	1.5
TSS	8.0	4.0
pH	Within the range 6.0 to 9.0.	

§ 430.56 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the paperboard from waste paper subcategory, which is a user of a publicly owned treatment works (and which would be a new source sub-

ject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in 40 CFR, Part 128, except that, for the purpose of this section, 40 CFR 128.133 shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 430.55; *Provided*, That if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.